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Capital markets in sub-Saharan Africa

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Abstract: Capital markets facilitate capital growth by mobilizing savings and converting them into investments, and they are therefore a stimulant of economic growth. There is evidence that countries with high savings rates tend to grow faster. Although most sub-Saharan Africa countries recognize the importance of local capital markets and have made efforts to develop them, they have not fully reaped the expected benefits. Hence the need for interventions to accelerate capital market development. These include sustaining efforts to ensure stability of the capital markets to build investor confidence through strict enforcement of the laws, regulations, and rules governing them; having a constant stable and conducive macroeconomic environment to incentivize investments; developing and implementing focused policies to support the growth of micro, small and medium-sized enterprises to enhance their listing attractiveness; having prudent and comprehensive policies that support the development of capital markets and their timely review; and designing effective approaches to exploit the anticipated benefits from trade agreements, which is key to growing the vibrant private sector necessary to support the development of capital markets.

Key words: capital markets, savings, investments, micro, small and medium-sized enterprises, private sector

JEL classification: E22, O1, O16, O4

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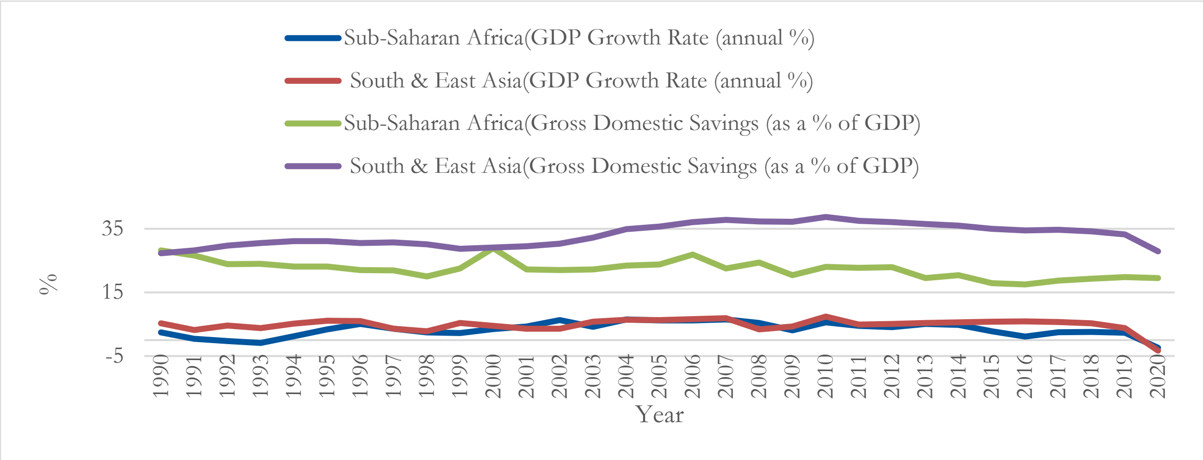
1 Introduction

Capital markets are organized, highly interconnected, and regulated financial markets in which long-term debts such as bonds, preference shares, equity shares, mutual funds, public deposits, derivatives, foreign exchange, and commodities are traded (Laeven 2014). The primary role of capital markets is to channel surplus funds or the savings of companies and households into long-term productive use by making long-term investments through the issuance and trading of long-term securities (Fama 2021). Governments also utilize the capital markets to raise funds for various investment projects through the issuance of long-term bonds. Hence, capital markets facilitate capital growth by mobilizing savings and converting them into investments, and they are therefore a stimulant of economic growth. Africa Union (2015) indicates that the development of Africa's capital markets is a key priority for Africa to take full responsibility in financing its development. Further, Nnyanzi et al. (2018) are of the view that capital markets are essential facilitators of economic growth in sub-Saharan Africa (SSA).

There is evidence that countries with high savings rates tend to grow faster on average. South and East Asian countries have experienced high economic growth mainly due to the high level of domestic savings (Figure 1). Over the last 30 years the domestic savings rate (percentage of gross domestic product (GDP)) and the GDP growth rate in South and East Asian countries have averaged 33 per cent and 4.8 per cent, respectively. In the same period the domestic savings rate (percentage of GDP) and GDP growth rate in SSA have averaged 22.4 per cent and 3.4 per cent, respectively. Hence, the mobilization of domestic savings through capital markets is critical for economic development in SSA.

Figure 1: Gross domestic savings and GDP growth rate



Source: authors' compilation based on data from World Bank (2022).

Therefore, developing capital markets is of great importance to SSA economies. The financial sector in SSA countries, except for South Africa, is bank dominated (Allen et al. 2011). Over the last decades significant advances have been made in the banking sector in SSA with the introduction of mobile banking platforms, enabling unbanked populations to have access to banking services. However, the banking industry remains characterized by high interest rate margins which reduce financial intermediation and thus investment levels. Hence, developing the capital markets in SSA economies can facilitate diversification of the financial sector, complement the banking sector through risk-sharing financial instruments, and provide long-term financing to the private and public sectors.

Further, the development of capital markets as a source of funding in SSA can help in managing foreign currency and refinancing risks. This is because, in SSA, funds are mainly sourced from abroad and are denominated in foreign currency. Local capital markets can also complement the gradual reductions in concessional funding from donors often with stringent conditionalities (Nega and Schneider 2011; Osano 2016). Hence, when fully developed, capital markets can serve as an alternative source of funding for SSA (Calderón and Zeufack 2020; Osano 2016). Capital markets additionally play a significant role in enhancing corporate governance standards (Haque et al. 2008). The need to create regulatory and legal frameworks to increase the level of transparency, corporate governance, and dissemination of information boosts investor confidence (Samaha et al. 2012).

Capital markets are also critical in tapping into foreign remittances. Remittances have become a significant source of foreign capital for many countries, at times exceeding other private capital inflows (Lartey 2013). The remittances in SSA averaged US$43.9 billion in the 2015–22 period compared to US$4.8 billion in 2000 (World Bank 2021). The African Capacity Building Foundation (2016) notes that the tremendous growth in remittances offers a promising and stable potential for increasing domestic savings and fostering long-term domestic investment, especially in the underdeveloped infrastructure in priority areas such as physical infrastructure (communication and transport), healthcare, housing, education, energy, agriculture, and micro, small, and medium enterprises (MSMEs). Osano (2016) estimates the funding deficit for MSMEs, agri-business, housing, and infrastructure in Africa to be approximately US$300 billion per annum. Capital markets can therefore narrow these funding gaps in infrastructure for economic take-off. Kodongo and Ojah (2016) note that there is a strong correlation between investment in infrastructure and robust economic development

To enlarge the prevailing literature on developing capital markets in SSA countries, this study explores two areas: 1) the evolution, structure, and products, and 2) the performance of capital markets in SSA countries. We employ a literature review and secondary data to identify the issues that require interventions in developing capital markets in SSA countries. The remainder of the study is organized in three sections. Section 2 reviews the evolution, structure, and products in capital markets, while section 3 analyses the performance of the markets. The conclusion and policy implications are provided in section 4.

2 Evolution, structure, and products

2.1 Evolution

The developed world's major stock markets emerged in the 19th and 20th centuries, led by the London Stock Exchange and the New York Stock Exchange (Raubenheimer 2019). The stock exchange concept also spread rapidly to SSA after colonial occupation and the discovery of minerals (Karekwaivenani 2003). During the colonial period financial systems in most SSA countries were underdeveloped. Banks dominated the financial sector, with a few countries such as Zimbabwe and South Africa dominated by colonial settlers having capital markets (Gakunu 2007).

The Johannesburg Stock Exchange and Zimbabwe Stock Exchange were established in 1887 and in 1894, respectively, to facilitate the explosion of trade sparked by the discovery of natural resources (Karekwaivenani 2003). The discovery of gold in 1886 in Witwatersrand, South Africa led to the formation of mining and financial companies by investors who needed a central facility to access primary capital (JSE 2021; SAHO 2021). The Zimbabwe Stock Exchange was formed to meet the capital needs of the gold-mining industry, whose rapid expansion was fuelled by prospects of gold in Zimbabwe (then Southern Rhodesia). During this period the Johannesburg and London Stock Exchanges also had new listings of Zimbabwe enterprises which sought to raise capital for their mining activities.

In 1954 the Nairobi Securities Exchange (then Nairobi Stock Exchange) was the third exchange to be established as a voluntary association of the European community stockbrokers and registered under the Societies Act. The exchange was charged with developing the securities market and regulating trading activities in British Kenya (NSE 2013). The Nigerian Exchange Group (NGX Group), formerly known as The Nigerian Stock Exchange, was established in 1961 primarily as a securities market (Nigeria Exchange Group 2019). In 1988 the Stock Exchange of Mauritius was the fifth exchange to be established (ASEA 2021). Other capital markets in SSA were established after the financial crises in the 1990s caused recessions in these economies. Thus, to restore economic growth, many SSA countries initiated broader stabilization and adjustment programmes to reform the financial system by rehabilitating the formal banking system, removing financial repression, and establishing capital markets (Gakunu 2007).

Thus, most exchanges in SSA are young, 32 years and younger except for the Johannesburg Stock Exchange, Zimbabwe Stock Exchange, Nairobi Securities Exchange, and Nigerian Stock Exchange. South Africa, Nigeria, and Zambia have more than one exchange. There are two regional exchanges in West and Central Africa serving several countries in the region. These are the Bourse Régionale des Valeurs Mobilières (BRVM) and the Bourse des Valeurs Mobilières de l'Afrique Centrale (BVMAC) (Table 1).

Table 1: List of exchanges in SSA countries

Region	Country	Exchange	Location	Year established
East Africa	Kenya	Nairobi Securities Exchange	Nairobi	1954
	Mauritius	Stock Exchange of Mauritius	Port Louis	1988
	Uganda	Uganda Securities Exchange	Kampala	1997
	Tanzania	Dar es Salaam Stock Exchange	Dar es Salaam	1998
	Somalia	Somali Stock Exchange	Mogadishu	2015
	Rwanda	Rwanda Stock Exchange	Kigali	2011
	Seychelles	Merj Exchange Limited	Victoria	2012
Southern Africa	South Africa	Johannesburg Stock Exchange Limited	Johannesburg	1887
		A2X Markets	Johannesburg	2017
		4 Africa Exchange	Johannesburg	2017
		ZAR X	Johannesburg	2016
		Equity Express Securities Exchange	Johannesburg	2017
	Eswatini (Formerly Swaziland)	Eswatini Stock Exchange	Mbabane	1990
	Zambia	Lusaka Stock Exchange	Lusaka	1994
		Africa Digital Stock Exchange Ltd	Zambia	2018
	Zimbabwe	Zimbabwe Stock Exchange	Harare	1894
	Namibia	Namibia Stock Exchange	Windhoek	1992
	Mozambique	Bolsa de Valores de Mozambique	Maputo	1999
	Malawi	Malawi Stock Exchange	Blantyre	1995
	Lesotho	Maseru Securities Exchange	Maseru	2016
	Angola	Angola Stock Exchange and Derivatives	Luanda	2016

	Botswana	Botswana Stock Exchange	Gaborone	1989
West Africa	Nigeria	Nigerian Stock Exchange	Lagos	1960
		Abuja Securities and Commodities Exchange	Abuja	1998
	Ghana	Ghana Stock Exchange	Accra	1990
	Côte d'Ivoire, Benin Burkina Faso Guinea-Bissau Mali Niger Senegal Togo	Bourse Régionale des Valeurs Mobilières (regional securities exchange in English) The stock market is for seven countries in the West Africa Economic and Monetary Union (WAEMU)	Abidjan	1998
	Cameroon	Douala Stock Exchange	Douala	2001
	Cape Verde	Bolsa de Valores de Cabo Verde	Mindelo	2005
Central Africa	Gabon The Central African Republic Republic of Congo Equatorial Guinea Chad	Bourse des Valeurs Mobilières de l'Afrique Centrale (Stock Exchange of Central Africa)	Libreville	2003

Source: authors' compilation based on data from ASEA (2021a), Maseru Securities Market. (2019) and Somali Stock Exchange (2022).

2.2 Structure: institutional and legal framework

The players in SSA capital markets mainly include financial intermediaries, market regulators, and local and foreign investors. The role of financial intermediaries is to reduce information asymmetries, extend corporate control, manage investment risks, and mobilize savings. This includes exchanges, underwriting firms, stock brokerage firms, and investment banks (Mahdi 2008). The underwriting firms administer the public issuance and distribution of securities during initial public offers (IPOs), evaluating investors' risks and insuring them against contingencies. Stock brokerage firms connect the buyers and sellers of stocks and securities and facilitate their transactions. Investment firms offer financial advice and invest on behalf of their clients as well as administering mergers and acquisitions (Soumare et al. 2021).

The existence of an effective and robust institutional governance mechanism to offer services, enforce rules and regulations, and uphold investors' rights is a crucial component of the legal and institutional environment needed for the development of capital markets. In SSA the regulators in capital markets include local central banks, capital market authorities, and securities and exchange commissions. The regulators through various laws, rules, and regulations guide the day-to-day trading activities in the capital markets (Table A1 in the appendix). They also conduct supervisory and regulatory oversight to protect the interests of investors and issuers by ensuring that the players in capital markets operate seamlessly and that contracts and agreements are settled on time. Capital markets therefore play a significant role in enhancing the institutional governance and legal standards in an economy (Haque et al. 2008; Samaha et al. 2012).

The African Securities Exchanges Association (ASEA), established in 1993, fosters capital mobilization, promotes sustainability, and enhances financial inclusion for the benefit of Africa's economic development. It hosts 27 exchanges in 37 African countries. The organization makes concerted efforts in lobbying for and promoting the position of African capital markets as drivers of economic growth in the region (Raubenheimer 2019). It does so by championing the exchanges' common areas of interest, such as capacity building, market development, and cross-border trading of securities. In 2018 the African Development Bank and ASEA launched the African Exchanges Linkage Project whose aim is to create linkages between capital markets in SSA by developing laws, regulations, and procedures that enable seamless operation and trade coordination in the SSA capital markets (ASEA 2021b).

Some of the exchanges in SSA are also signatories to international associations such as the World Federation of Exchanges. This organization promotes and encourages capital markets to adhere to internationally accepted standards of best practice by developing appropriate, broadly accepted guidelines, rules, recommendations, and standards documentation aimed at maintaining and enhancing the framework of cross-border issuing, trading, and investing capital market instruments (WFE 2021a).

Despite the presence of the legal and regulatory framework in SSA countries, uncertainty in the capital markets remains. In the Global Competitiveness Index compiled by the World Economic Forum, most regulators in SSA have an average score for ensuring the stability of the financial market. In the Global Competitiveness Report 2017–2018, Guinea-Bissau, Namibia, Rwanda, South Africa, Botswana, Kenya Mauritius, Nigeria, Eswatini, and Zambia scored highly, at above 4.1 out of 7, in the indicator for the regulation of securities exchanges (Schwab 2019). The other countries had a low score, an indication of uncertainty in the stability of the markets. Similarly, in the Global Competitiveness Report 2016–2017, only a few countries scored highly. These were South Africa, Namibia, Rwanda, Nigeria, Botswana, Kenya, Mauritius, Uganda, Zambia, and Cape Verde, who had a score of above 4.1 (Schwab 2018). Indeed, Chimpango (2019) shows that many capital markets in SSA remain undeveloped and sluggish due to the high risks and uncertainty in enforcing standard financial market agreements. Hence, alignment with internationally recognized contractual and legal frameworks can help to mitigate such risks and uncertainty to enhance the accountability and dissemination of information and increase the level of transparency and corporate governance in capital markets, which boosts investor confidence.

In the Global Competitiveness Reports 2017–2018 and 2016–2017, Singapore and Malaysia ranked highly in ensuring the stability of financial markets, with a score of 6.4 and 5.3, respectively, in the indicator of regulation of securities exchanges. Singapore and Malaysia have strengthened their institutional governance to promote efficiency and effectiveness in both the public and the private sectors. Singapore's robust economic fundamentals include prudent government policies, good corporate governance, the credibility of policy makers, and a sound financial system that has seen many high net-worth individuals choose Singapore as their financial centre for managing their wealth. The depth and breadth of institutions in Singapore also give them ready access to global and regional financial markets while at the same time providing a full suite of wealth management services to meet their holistic needs (Monetary Authority of Singapore 2021).

To remedy poor corporate governance, widely seen as one of the causes of the 1997 Asian financial crisis, the Malaysian government initiated corporate governance reforms in 1998. These included making corporate boards more responsive to shareholders; better training, education, and laws to enhance the protection of minority shareholders (Singh and Yusof 2005); improving disclosure and transparency, including guidelines on prospectus regulation; and enabling civil lawsuits for insufficient or misleading disclosure (Securities Commission of Malaysia 2001). The Capital-market Master Plan (2000–10) further strengthened minority shareholders' rights and disclosure requirements. The Malaysian government passed additional corporate governance legislation including the Anti-Corruption Commission Bill in 2008 and the Witness Protection Bill in 2004 (Woodsome 2016).

2.3 Products

Exchanges in SSA have limited diversity of products available for trading, likely because many are still at their early developmental stage. Most exchanges only offer plain vanilla (unsophisticated) products in equities and bonds, a limited number of commodities in the form of agricultural products (tea, coffee, beans, sugar, wheat, groundnuts, sunflower, sorghum, and maize), and a few metals such as gold, platinum, and diamonds (Soumare et al. 2021).

There are only a few exchanges with diversified products (Table A2 in the appendix). South Africa's Johannesburg Stock Exchange offers a variety of exotic (sophisticated) products in equities, bonds, derivatives, investment funds, securitized derivatives, real estate investment trusts (REITs), and exchange traded funds (ETFs). The Nairobi Securities Exchange, which has a derivatives market that was established in 2019, trades in equity index futures (these are derivatives instruments that give investors exposure to price movements on an underlying index made up of a certain group of shares or stocks) and single stock futures (derivative instruments that give investors exposure to price movements on a particular underlying stock) (NSE 2021). Other products in the Nairobi Securities Exchange are investment funds, REITs, and ETFs. The Seychelles (Merj Exchange Limited) also has a derivates market of stocks and currency. The Meri Exchange also offers investment funds and ETFs. Although the Stock Exchange of Mauritius, Dar es Salaam Stock Exchange of Tanzania, Uganda Securities Exchange, Eswatini Stock Exchange, Lusaka Stock Exchange of Zambia, Zimbabwe Stock Exchange, Namibia Stock Exchange, Botswana Stock Exchange, Nigeria Stock Exchange, and Ghana Stock Exchange offer investment funds, REITs, and ETFs, they are yet to establish derivatives markets.

3 Performance of capital markets

3.1 Equity market

Initial public offers (IPOs)

Primary capital markets allow firms to raise capital from the public by issuing new stocks through IPOs. Despite the increased liberalization and integration of financial markets with the rest of the world, the SSA region's equity capital markets still lag far behind in performance in terms of the capital raised through IPOs (Table 2 and Table A3 in the appendix). In 2010 there were 14 IPOs in SSA, which raised US$1.8 billion, compared to 1,258 IPOs across the globe, which raised US$299.1 billion. The number of IPOs across the globe increased to 1,415 in 2020, raising US$331.3 billion. However, the number of IPOs in sub-Sharan Africa fell to three in 2020, raising US$514 million (PwC 2021). The US$13.6 billion raised in SSA in the period from 2010 to 2020 compares unfavourably with South Korea, Singapore, and Malaysia, which raised a total of US$84.9 billion. In the same period Malaysia had a total of 203 IPOs compared to 148 IPOs in SSA.

Table 2: IPOs: capital raised (USD billions)

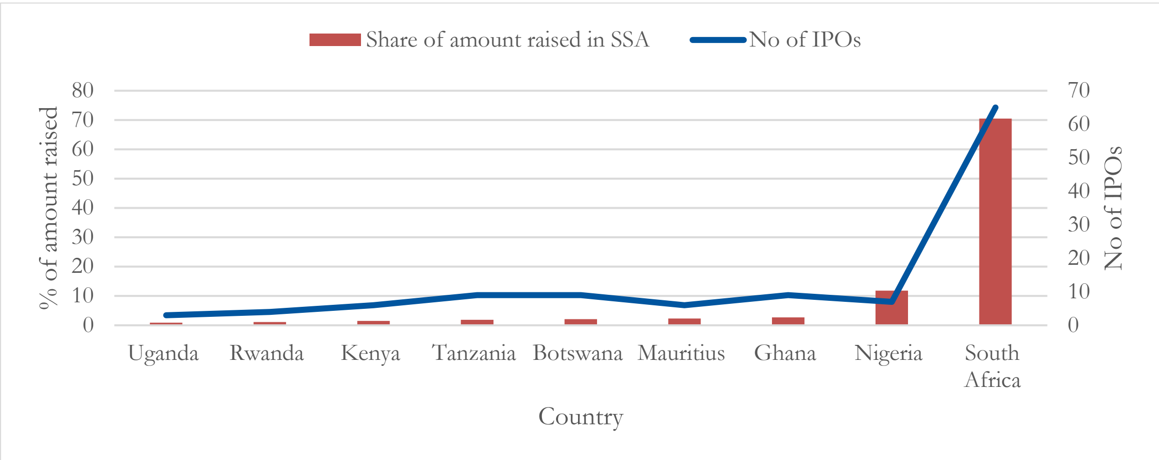
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Global	(1,258) 299.1	(1,041) 178.8	(728) 142.5	(865) 195.6	(1,167) 274.3	(1,185) 206.9	(1,013) 142.5	(1,523) 209.0	(1,198) 223.6	(1,040) 199.2	(1,415) 331.3
Africa	(23) 2.6	(17) 1.1	(13) 0.4	(23) 0.9	(27) 1.7	(32) 2.0	(24) 1.6	(30) 3.1	(17) 2.2	(9) 1.2	(5) 0.6
Sub-Saharan Africa	(14) 1.8	(13) 1.0	(10) 0.4	(9) 0.6	(19) 1.4	(24) 1.1	(17) 1.1	24) 2.9	(9) 1.8	(6) 1.0	(3) 0.5
South Korea, Singapore, and Malaysia	-	15.8	12.3	9.6	8.6	5.1	7.1	12.8	3.1	5.0	5.5

Note: number of IPOs in brackets.

Source: authors' compilation based on data from PwC (2019, 2021) and various stock/securities exchanges in SSA.

Figure 2 shows the top SSA countries by number of IPOs and share of amount raised. South Africa and Nigeria are top both in the number of IPOs issued and the subsequent amounts raised, followed by Ghana, Mauritius, Botswana, and Tanzania. With the exception of Mauritius, which is a tourism-dependent economy, these are oil-exporting or resource-intensive economies. The non-resource-intensive economies, including Kenya, Rwanda, and Uganda, are other countries where IPOs are active. In the 2010–20 period, there were only three IPOs in Kenya, which raised a total of Ksh7.77 billion. One IPO was over-subscribed at 764 per cent, with the other two IPOs being under-subscribed at 60 and 28.96 per cent (Capital Market Authority, 2020).

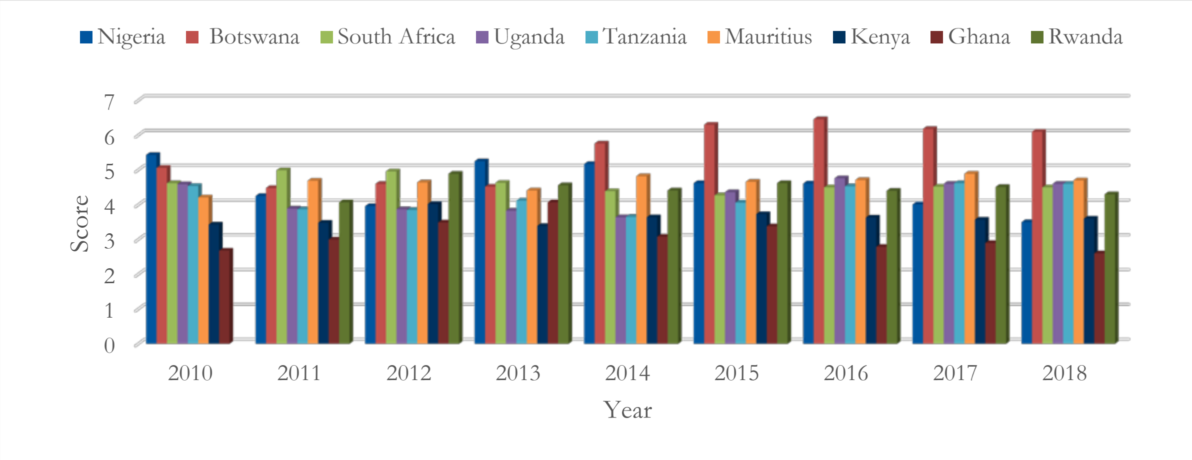
Figure 2: IPOs in selected SSA countries (2010–20)



Source: authors' compilation based on data from PwC (2019, 2021).

The condition of an economy's macroeconomic environment is important as it affects firms' investment decisions and the subsequent raising of funds. Thus a conducive macroeconomic environment is likely to influence firms to make favourable investment decisions and hence the issuance of IPOs.

Figure 3: Global Competitiveness Index: macroeconomic environment for selected SSA countries



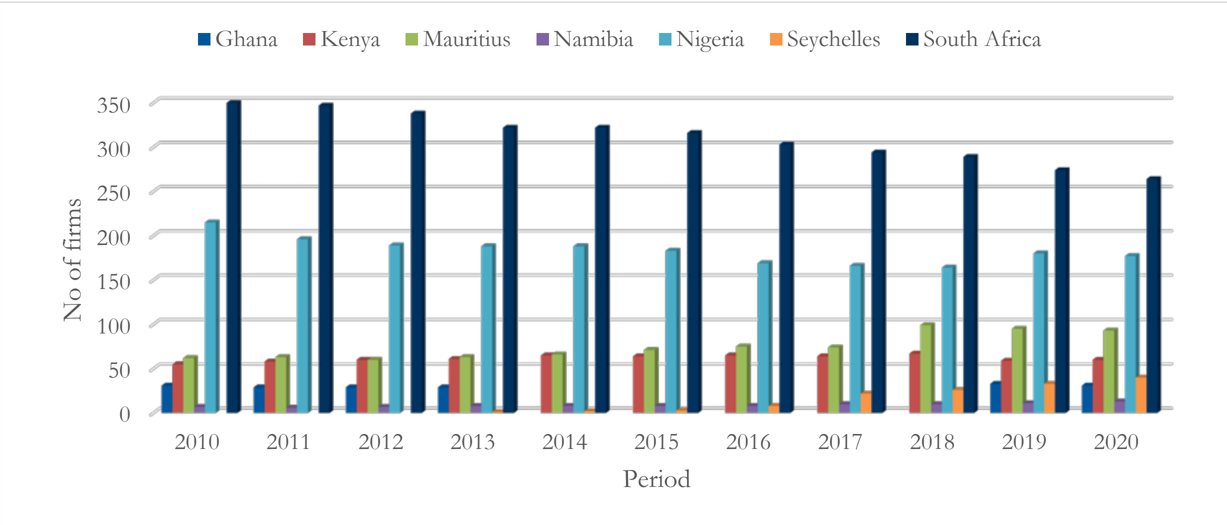
Source: authors' compilation based on various World Economic Forum Global Competitiveness reports.

Figure 3 shows the macroeconomic environment scores in the Global Competitiveness Index for selected SSA countries where IPOs are active. Generally, at the time of the issue of IPOs, the selected countries had a conducive macroeconomic environment. This indicates that there is a relationship between the macroeconomic environment and the issue of IPO issues.

Listed firms

There are a small number of listings across all exchanges in SSA. South Africa leads with over 250 firms, followed by Nigeria, which has slightly over 150 firms. Other countries, including Ghana, Kenya, Mauritius, Namibia, and Seychelles, have fewer than 100 firms (Figure 4).

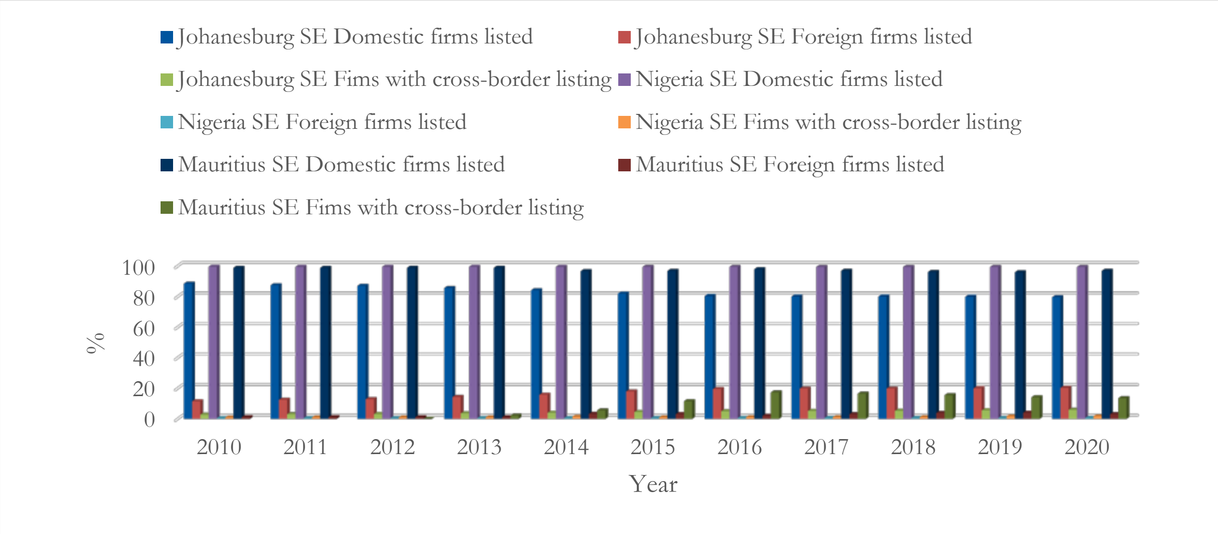
Figure 4: Listed firms in selected SSA countries



Source: authors' compilation based on data from World Bank (2022).

Further, there is low listing of foreign firms and cross-listing in SSA (Figure 5). Domestic firms comprise over 80 per cent of listings in the selected SSA countries.

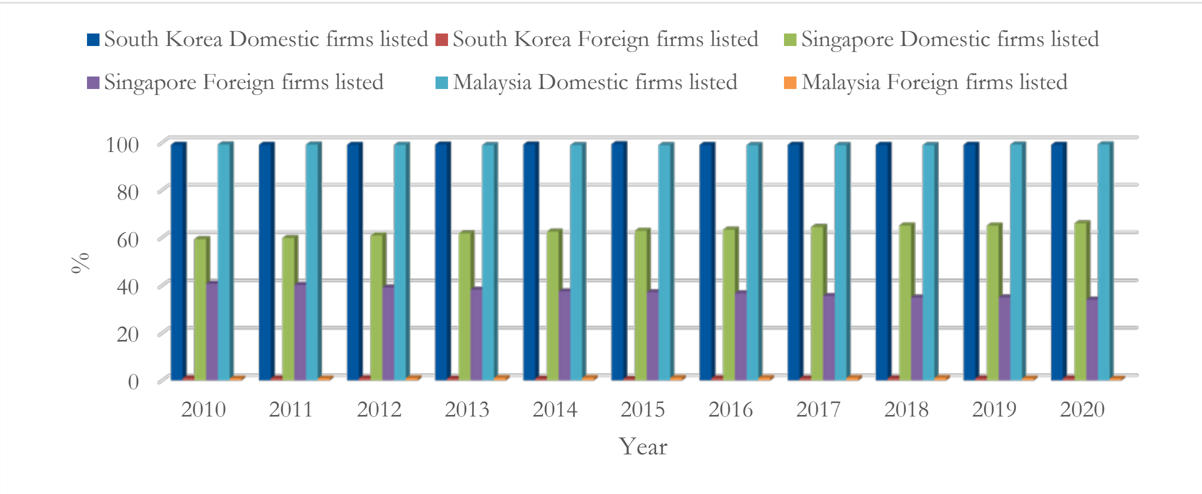
Figure 5: Domestic, foreign, and cross-listed firms in selected SSA countries



Source: authors' compilation based on data from World Bank (2022).

Domestic firm listings also dominate in South Korea and Malaysia, at about 99 per cent (Figure 6). However, in Singapore, the share of foreign firms listed averages about 40 per cent for the 2010–20 period. The main reason for this is that Singapore has an extremely open trade and capital flow policy which attracts foreign investment.

Figure 6: Domestic and foreign listed firms in South Korea, Singapore, and Malaysia



Source: authors' compilation based on data from World Bank (2022).

Openness to foreign investment, including restriction on capital flows, affects foreign participation in capital markets. Using the Global Competitiveness Index's prevalence of foreign companies indicator to assess the attractiveness of foreign investment in SSA countries, we can deduce that there are friendly capital flow policies in these countries. Most SSA countries have a score of above 4 out of 7 (Figure 7). This indicates that, despite the efforts of SSA countries to attract foreign investment, the participation of these foreign firms in stocks/securities remains low, likely due to other factors.

Figure 7: Global Competitiveness Index: prevalence of foreign ownership of companies

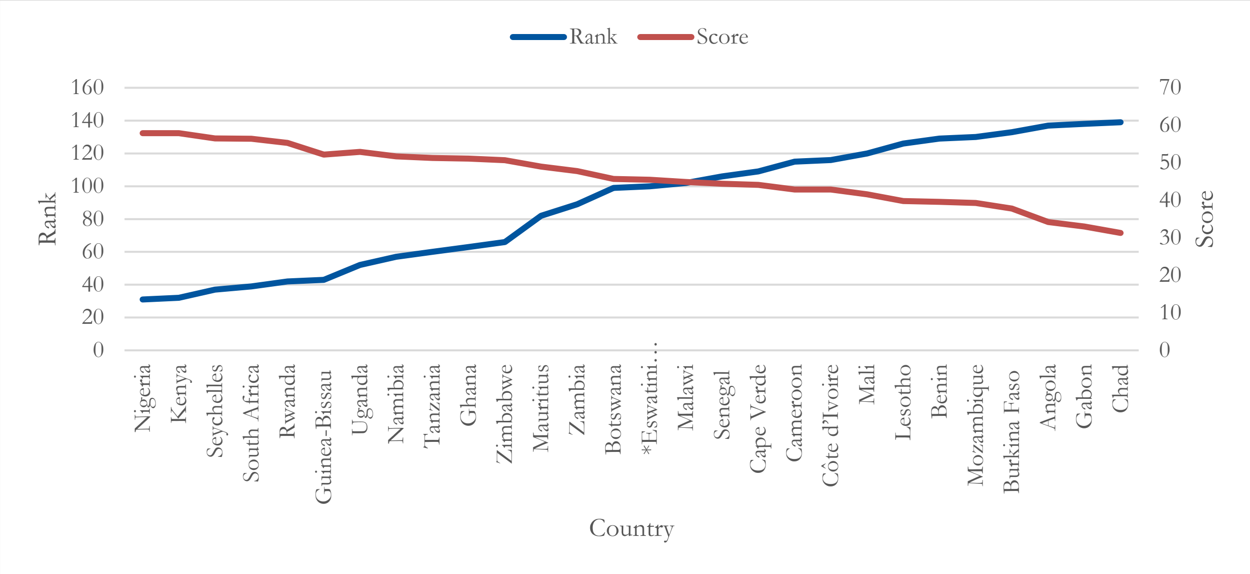
Source: authors' compilation based on various World Economic Forum Global Competitiveness reports.

To boost listings some SSA countries have set up over-the-counter markets and boards with less strict listing requirements to attract indigenous firms which are largely informal. The Johannesburg Stock Exchange has developed the AltX (alternative exchange) board, which is a division of the Johannesburg Stock Exchange Limited. This board focuses on high-growth small and medium-sized enterprises (SMEs). The AltX, currently with 130 listed firms, offers small firms a springboard onto the main board of the Johannesburg Stock Exchange, with a clear growth path and access to capital (JSE 2022). The Nairobi Securities Exchange also developed the Growth Enterprise Market Segment (GEMS) board in 2013 for SMEs. It enables SMEs to raise substantial capital within a regulatory environment that is designed to meet their specific needs. The board also offers the SMEs flexible listing requirements in line with their growth phase (NSE 2022a). The GEMS has so far listed only five firms.

The Nigeria Exchange Group has a Growth Board which targets fast-growth firms such as SMEs operating in various sectors, including technology companies, and connects them with an extensive pool of investors. Growth Board firms enjoy a reduced fee structure, relaxed entry criteria, and reduced post-listing obligations. They also enjoy an increased turnaround time for approvals (Nigeria Exchange Group 2020). To boost listings the Ghana Stock Exchange has established the Ghana Alternative Market (GAX) to encourage the listing of SMEs (GSIA 2022).

Despite the efforts to boost listings of MSMEs in SSA, they remain unattractive for listing mainly because they are associated with low returns. One of the constraints that MSMEs face is the entrepreneurial culture, which affects their development. The entrepreneurial culture in most SSA countries is weak. The Global Competitiveness Index report 2019 (Schwab 2019) indicates that, except for a few countries, the score for entrepreneurial culture attitudes towards entrepreneurial risk, willingness to delegate authority, growth of innovative companies, companies embracing disruptive ideas in SSA is below 50 out of 100 (Figure 8). In the same period South Korea, Singapore, and Malaysia scored 52.1, 64.2, and 70.4 respectively.

Figure 8: Global Competitiveness Index: entrepreneurial culture for selected SSA countries



Source: authors' compilation based on Schwab (2019).

Platforms which cater to the unique requirements of MSMEs have been successful in South East Asian countries. In 2015, for example, the Malaysia Securities Commission introduced two alternative financing platforms via equity crowdfunding (ECF) and peer-to-peer lending to promote alternative avenues for raising capital. These platforms were intended to ease funding for companies or ventures. The two platforms connect issuers with traditionally untapped pools of investors through cheaper, faster, and more convenient delivery channels. The number of ECF platforms has increased to ten and they have facilitated 106 fruitful fundraising (crowdfunding) campaigns, raising a total of MYR110.26 million through issuing equity, mainly preference shares, for 102 private limited companies (CFA Institute Research Foundation 2021).

Further, the governments of South Korea, Malaysia, and Singapore have sought to promote indigenous firms, thus making them attractive for listing. The South Korean government, under its import-substitution industrialization policy, selected indigenous industrial firms known as *Cheobols*, which are large-scale, family-run conglomerates owned by a single family (Gupta and Sharma 2014; Kim 2017) in focused industries, allowing them to buy foreign currencies and to borrow funds from banks at favourable rates. Moreover, the government put in place protection measures including tariff barriers and prohibition of manufacturing imports. Through these measures the government wanted to give indigenous firms an opportunity to increase productivity via learning-by-doing and importation of superior technologies (Cha 2008). South Korea became an industrialized country with many export-oriented manufacturing firms, which boosted its capital market development by growth in listings.

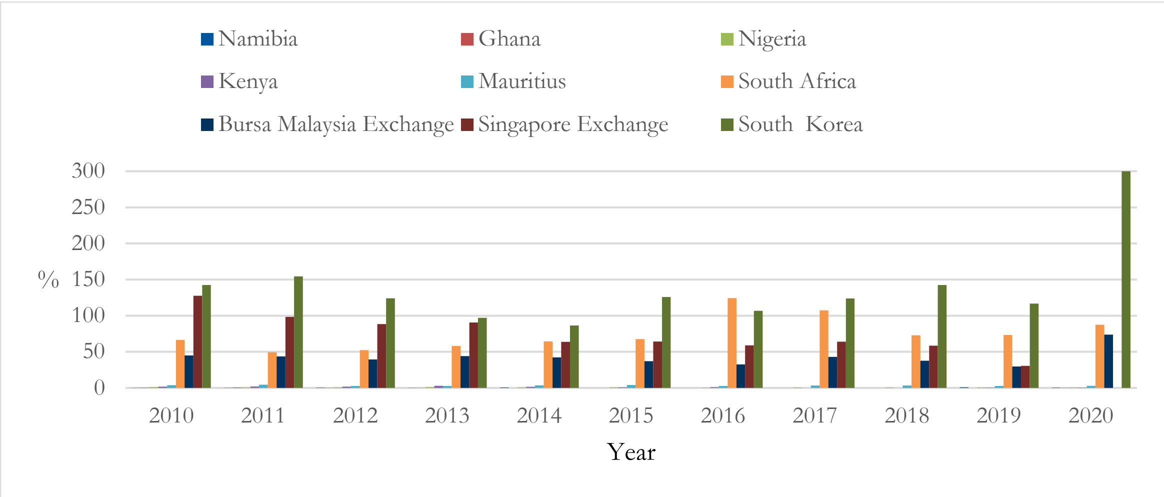
From the 1970s Malaysia adopted an export-led growth strategy which focused on moving away from a primary product-dependent economy (rubber and tin) to one in which the manufacturing industry emerged as the leading growth sector. As a result the country created robust, private sector-driven industries starting with textiles, electrical and electronic products, rubber products, and a service sector economy with a major focus on financial markets (Woodsome 2016).

After independence Singapore embarked on a comprehensive programme of industrialization, with a focus on labour-intensive industries. The state's neoliberal policies, a conducive business environment, and an expansive and efficient financial sector opened it to trade and capital flows, enabling multinational enterprises to set up bases there and transfer capital, which jumpstarted manufacturing. By 1972, seven years after gaining independence, 25 per cent of Singapore's manufacturing firms were foreign-owned or joint-venture companies, with Japan and the United States as major investors. These firms primarily exported textiles, garments, and basic electronics. However, by the 1990s, the country had transitioned into export promotion in water fabrication, pharmaceuticals, biotech research, aerospace engineering, and integrated circuit design products, and had become a major logistics and financial hub in the region (Zhou 2021).

Equity turnover and market capitalization

Equity turnover in selected SSA and Asian countries for the 2010–20 period is given in Figure 9.

Figure 9: Equity turnover (% of GDP) in selected SSA and Asian countries

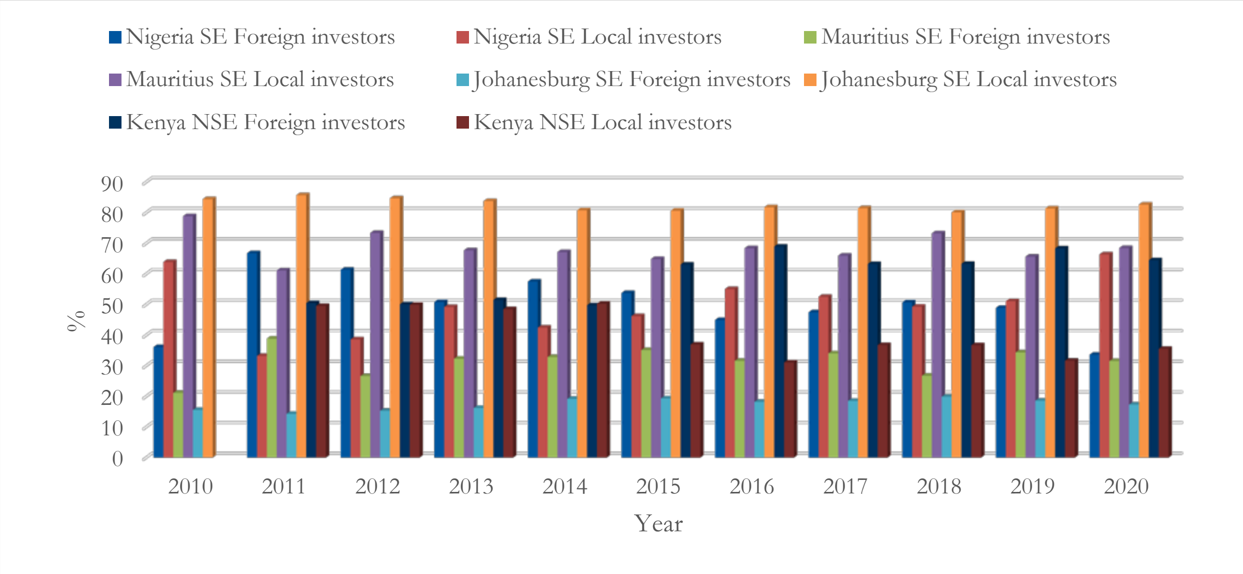


Source: authors' compilation based on data from World Bank (2022).

In SSA countries South Africa ranks first, with an average turnover of 74 per cent. Other countries like Namibia, Ghana, Nigeria, Kenya, and Mauritius have a turnover of below 50 per cent. South Korea has an average turnover of about 140 per cent, which is higher than that of Singapore and Malaysia, at 74 per cent and 43 per cent, respectively.

Except for Nigeria, which has a substantive proportion of foreign investors, there is generally a low proportion of foreign investors in the trading of securities in most SSA countries (Figure 10).

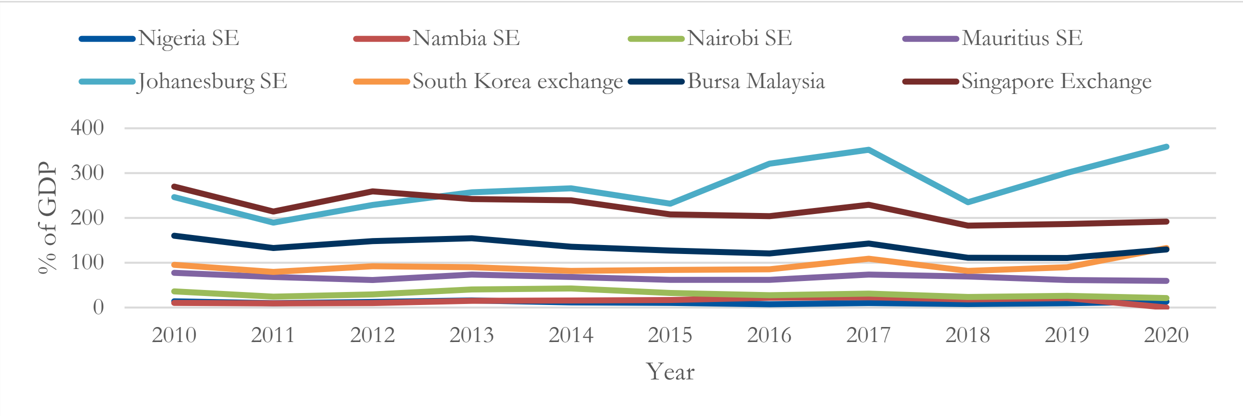
Figure 10: Domestic and foreign investor participation (% of total equity turnover) in selected SSA countries



Source: authors' compilation based on data from World Bank (2022).

The trading of equities affects market capitalization, which is a measure of the size of the stock market. South Africa has a huge market capitalization of above 200 per cent, which is higher than that of Singapore, Malaysia, and South Korea. Other SSA countries have a market capitalization of below 100 per cent (Figure 11).

Figure 11: Market capitalization (% of GDP) in selected SSA and Asian countries



Source: authors' compilation based on data from World Bank (2022).

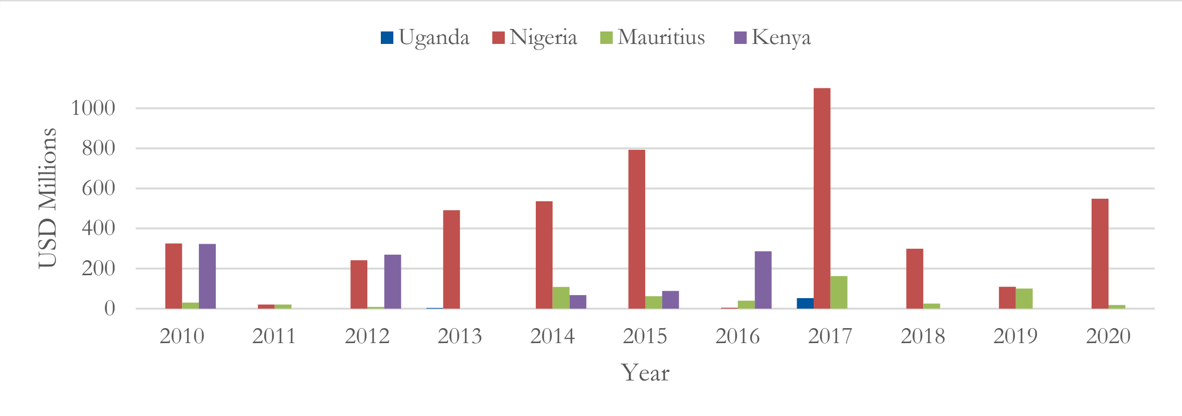
Exchanges in SSA are gradually adopting the electronic systems of trading, clearance, and settlement (Table A4 in the appendix). This has enhanced the transparency and efficiency in the trading of securities, with most SSA countries reducing their settlement cycles after trade from a T+5 (settlement after five business days) to a T+3 basis (JSE 2016; NSE 2022b). There are, however, a few exchanges, such as the Rwanda Stock Exchange and Maseru Securities Exchange in Lesotho, which trade manually and/or use manual clearing and settlement (Maseru Securities Market 2022; Rwanda Stock Exchange 2022). Similarly, several exchanges do not have a central depository system. In South Korea, Malaysia, and Singapore, the exchanges are fully automated, making the clearing and settlement of transactions two days after the trade date, i.e. T+2 (Bursa Malaysia 2022; Korea Exchange 2022; Singapore Exchange 2022).

The adoption of technology has helped to lower transaction costs in many exchanges in SSA. However, the transaction costs in most SSA exchanges are relatively high when compared with the transaction costs in developed and emerging markets around the world. In some exchanges such as the BRVM, which serves the francophone countries in West Africa, and the Stock Exchange of Mauritius, the transaction fee is a percentage of the entire transaction value (except for the government securities in Mauritius). At the Stock Exchange of Mauritius, the fees for a transaction not exceeding MUR3 million is 1.25 per cent, decreasing to 0.9 per cent for any transaction above MUR10 million. However, there is no upper limit for the fees paid in a transaction at the BRVM. The transaction commission to the BRVM and to the Central Depository/Settlement Bank (DC/BR) is 0.3 per cent of the transaction amount (BRVM 2022; Stock Exchange of Mauritius 2022).

Rights issues

Rights issues are an important means through which listed firms raise equity capital by giving existing shareholders an opportunity to buy additional new shares. Thus a firm can raise additional capital to expand its operations much more cheaply than it would if it used debt capital. Capital increases from rights issues enhance a firm's reputation and strengthen its financial structure (Corporate Finance Institute 2020). There are a few rights issues in SSA countries. Nigeria is the leader in rights issues, followed by Mauritius and Uganda (Figure 12). As in the case of IPOs, the macroeconomic environment can affect rights issues. This compares unfavourably with Malaysia, which had 650 rights issues between 2010 and 2019.

Figure 12: Rights issues in Uganda, Nigeria Mauritius, and Kenya.



Source: authors' compilation based on data from Uganda Securities Exchange (2021), Nigeria Exchange Group (2021), NSE (2021), and Stock Exchange of Mauritius (2021).

3.2 Bonds market

The development of the local debt capital markets in SSA is of significant interest given the relatively low levels of bank credit that are available to the private sector. Domestic credit to the private sector is estimated to range between 17 and 54 per cent of GDP on average for the key SSA economies, compared to well over 100 per cent of GDP in developed capital markets (World Bank 2021). In most SSA countries, however, corporate bonds constitute a tiny part of the bond markets. In Kenya, for example, treasury bonds continue to dominate the market at 99 per cent. It is only in South Africa and Nigeria that the corporate bonds market dominates in terms of the number of issuances. The public sector bonds listed in many SSA countries dominate mainly because these countries do not have a vibrant private sector which is dominated by very few large private corporations and many MSMEs in the informal sector (Soumare et al. 2021).

The total capital raised from corporate bonds in SSA in the 2011–19 period was US$1.2 billion. In some countries no corporate bonds were issued (Table A5 in the appendix). About 85 per cent of corporate bonds listed on the SSA capital markets have an average maturity of 11 years, while 81 per cent of public bonds have an average maturity of about eight years. Only nine countries in SSA issue long-term bonds (bonds with a maturity of more than 20 years) in the domestic market. These are South Africa, Nigeria, Kenya, Mauritius, Angola, Botswana, Ghana, Namibia, and Tanzania. This can be explained by the fact that these countries have a larger pool of investors than their counterparts in SSA. These countries also have better macroeconomic fundamentals and a bigger GDP. However, they are also limited by a lack of depth in the local capital markets and a benchmark yield curve that can provide pricing signals to potential corporate issuers, which impedes the development of corporate bond markets (Soumare et al. 2021).

As most SSA countries do not have well-established and liquid capital markets, external debt has become the only source of capital. External debt is driven by low revenues and high expenditure needs, particularly in infrastructure development. The countries in SSA that have issued Eurobonds on the international capital markets include South Africa, Nigeria, Angola, Ethiopia, Zambia, Ghana, Kenya, Senegal, Gabon, Cameroon, Mozambique, Namibia, Rwanda, and Seychelles (see Table A6 in the appendix). In the 2011–19 period over US$391.7 billion was raised from non-local currency public bonds, out of which US$120 billion were Eurobond issues for which the largest issuers were South Africa and Nigeria. The appetite for Eurobonds has been supported by sustained GDP growth over the past two decades in most SSA countries, portfolio diversification strategies in mature capital markets, where investors are looking for additional yields, and prolonged low global interest rates (Soumare et al. 2021; Van der Wansem et al. 2019). In addition the lack of conditionalities, such as those imposed by the IMF, the World Bank, and other bilateral and multilateral lenders, and the drive to signal financial strength are the two pull-factors that make Eurobond funding a source of capital for many SSA countries. However, the Eurobonds issued by SSA countries in the international markets attract relatively high interest rates when compared to concessional financing and the concentrated principal payments at maturity. The average coupon rate varies from 5 per cent in Mozambique to 10.14 per cent in Zambia (Soumare et al. 2021; Cbonds 2021).

In addition to the relatively high interest rates, other indirect fees, such as the hedging cost and cost-of-carry, are added to the direct costs of the Eurobonds. All of these are considered when evaluating the total cost of borrowing from the international markets. As a result a few SSA countries have defaulted while others are experiencing difficulties in servicing foreign currency denominated debt. In December 2020 six countries in SSA were in debt distress while 14 others were at a high risk of debt distress (AfDB 2021). This is particularly profound in rentier states such as Zambia and Angola where volatile commodity prices and depreciation in local currencies have exacerbated the balance of payment deficits and reduced government revenues, increasing the budget deficits. Since the onset of the Covid-19 pandemic, Zambia has been unable to make a $42.5 million Eurobond repayment, becoming the first SSA economy to default on its debt (Soumare et al. 2021). Other emerging risk factors include fast-growing interest expenses as a share of government revenue, debt rollover risks due to shorter debt maturities, narrowing of the differential between real interest rates and GDP growth, debt collateralization with limited transparency, and expanding contingent liabilities (AfDB 2021).

Table 3: Capital raised in South Korea, Singapore, and Malaysia bonds market (billions USD)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
South Korea	(3,764) 985.6	(3,246) 1,043.1	(3,691) 1,206.1	(4,195) 1,343.3	(4,258) 1,326.5	(4,571) 1,329.9	(4,271) 1,547.0	(4,502) 1,579.3	(4,282) 1,885.2	(4,507) 985.6	(4,951) 1,043.1
Singapore	(164) 72.9	(287) 169.9	(300) 161.0	(424) 196.0	(487) 184.8	(501) 184.8	(349) 172.0	(819) 384.7	(1,155) 480.0	(1,066) 451.8	(1,032) 452.1
Malaysia	(19) 27.7	(19) 28.5	(20) 33.7	(20) 32.9	(20) 34.2	(22) 21.2	(24) 26.9	(25) 30.6	(24) 33.2	(23) 32.8	-

Note: bonds listed in brackets. The bonds listed at Bursa Malaysia are sukuk (sharia compliant bonds).

Source: authors' compilation based on data from World Federation of Exchanges (2021a), Bursa Malaysia and Singapore Exchange annual reports.

In Asia, South Korea has one of the largest bond markets (Table 3). All fixed income instruments in South Korea are available to both local and foreign investors. In South Korea a corporate bond issuer should be rated by at least two credit-rating agencies before the issue of bonds at the South Korean exchange. The treasury bonds are issued on a regular basis with maturities of three, five, and ten years, with the three-year bond being the most liquid (Cbonds 2022). Between 2010 and 2020 the number of bonds listed in South Korea grew from 3,764 bonds to 4,951 bonds. The capital raised from the bonds listed also grew from US$985.6 billion in 2010 to US$1.04 trillion in 2020 (Korea Exchange 2021).

The Singapore Exchange is also Asia's most internationally connected exchange, with over 40 per cent of listed firms and over 80 per cent of listed bonds originating from outside the country (Singapore Exchange 2021). Singapore's bond market has become one of the most developed and fastest growing in Asia. Between 2010 and 2020 the number of bonds listed in Singapore grew from 164 to 1,032. The capital raised from the bonds listed also grew from US$72.9 billion in 2010 to US$452.1 billion in 2020 (Table 3). The bond market is made up of Singapore Government Securities, quasi-government bonds, corporate bonds, and structured securities. The bond market is also fully accessible to all issuers and investors across the globe with no hedging restrictions, capital controls, or withholding taxes, making the bond market's profile international in nature, with foreign countries and firms accounting for more than 25 per cent of bond issuances. The state, through its regulatory agencies, also fine-tuned the bond listing requirements in 2009 to qualify high-grade securities issued by foreign entities as regulatory liquid assets. Since then there has been an increase in issuances by well-established AAA-rated foreign issuers such as the International Bank for Reconstruction and Development, African Development Bank, and International Finance Corp (Monetary Authority of Singapore 2021).

The continuous measures by the Malaysian government and regulatory authorities have positioned Malaysia as a hub for Islamic financial market activities, particularly in sukuk (CFA Institute Research Foundation 2021). Between 2010 and 2020 the number of bonds listed in Malaysia grew from 19 to 23. The capital raised from the bonds listed also grew from US$27.7 billion in 2010 to US$32.8 billion in 2019. The Malaysian bond market is one of the most developed and dynamic bond markets in the region, with its domestic market share of the total global sukuk issuances accounting for 40.6 per cent of the total US$132.2 billion sukuk issuances in 2020 (IIFM 2021).

4 Conclusions and policy implications

Most SSA countries recognize the importance of local capital markets and have made efforts to develop them. However, these efforts have not fully reaped the expected benefits from these markets, particularly the mobilization of the substantial domestic savings necessary to facilitate high economic growth in these countries. To identify what could be done to raise domestic savings in SSA through the capital markets, this paper explored two areas: 1) the evolution, structure, and products, and 2) the performance of capital markets in SSA countries. The key findings indicate that:

- Although there is a legal and regulatory framework that governs capital markets in most SSA countries, uncertainty in ensuring the stability of the markets remains;
- A conducive macroeconomic environment is critical as it influences firms' investment decisions, and hence the raising of capital through IPOs and rights issues;
- MSMEs' in SSA countries remain unattractive for listing due to constraints such as a weak entrepreneurial culture;
- Although there are friendly capital flow policies in most SSA countries, the participation of foreigners in the capital markets is low, likely due to other underlying factors; and
- Due to the presence of underdeveloped capital markets in most SSA countries, external debt has become the only source of capital, and this is likely to plunge the countries into external debt crises because of high interest rates and other associated indirect fees especially on Eurobonds.

Several interventions could support developing capital markets in SSA countries to facilitate the mobilization of domestic savings:

- The stability of the capital markets is crucial for building investor confidence. This calls for strict enforcement of the enacted laws, regulations, and rules governing capital markets. Enhancing the professionalism of public officers could strengthen regulatory oversight;

- A continuous, stable, and conducive macroeconomic environment will incentivize investments, thus spurring growth of the capital markets. Some of the indicators of a macroeconomic environment include inflation, government debt to revenue ratio, and public debt dynamics;

- The development and implementation of focused policies for supporting MSMEs' are necessary to ameliorate constraints such as the weak entrepreneurial culture which hinder their growth and thus their attractiveness for listing;

- Reflecting on prudent and comprehensive policies that support the development of capital markets is crucial and includes timely review of such policies; and

- Designing effective approaches to exploit the anticipated benefits from trade agreements such as the African Continental Free Trade Area is key to growing the vibrant private sector necessary to support the development of capital markets in SSA countries.

References

African Capacity Building Foundation (2016). 'Infrastructure Development and Financing in Sub-Saharan Africa: Toward a Framework for Capacity Enhancement'. Africa Portal. Available at: https://www.africaportal.org/publications/infrastructure-development-and-financing-in-sub-saharan-africa-toward-a-framework-for-capacity-enhancement/ (accessed September 2022).

AfDB (African Development Bank Group) (2021). 'African Economic Outlook 2021. From Debt Resolution to Growth: The Road Ahead from Africa. African Development Bank'. Available at: https://www.afdb.org/en/documents/african-economic-outlook-2021 (accessed September 2022).

ASEA (African Securities Exchanges Association) (2021a). 'Membership. African Securities Exchanges Association - The Premier Association of 25 Securities Exchanges in Africa'. Available at: https://african-exchanges.org/membership/(accessed September 2022).

ASEA (African Securities Exchanges Association) (2021b). 'The African Exchanges Linkage Project (AELP): Phase 1'. African Securities Exchanges Association. Available at: https://african-exchanges.org/the-african-exchanges-linkage-project-aelp-phase-1 (accessed September 2022).

Africa Union (2015). 'Goals and Priority Areas of Agenda 2063'. Available at: https://au.int/en/agenda2063/goals (accessed September 2022).

Allen, F., I. Otchere, and L.W. Senbet (2011). 'African Financial Systems: A Review'. *Review of Development Finance,* 1(2): 79–113. https://doi.org/10.1016/j.rdf.2011.03.003

BRVM (Bourse Régionale des Valeurs Mobilières) (2022). 'What Are the Applicable Fees?'. Available at: https://www.brvm.org/en/what-are-applicable-fees# (accessed September 2022).

Bursa Malaysia (2022). 'Trading Procedures'. Available at: https://www.bursamalaysia.com/trade/trading_resources/equities/trading_procedures (accessed September 2022).

Calderón, C., and A.G. Zeufack (2020). 'Borrow with Sorrow? The Changing Risk Profile of Sub-Saharan Africa's Debt'. Policy Research Working Paper 9137. Washington DC: World Bank. Available at: http://documents1.worldbank.org/curated/en/370721580415352349/pdf/Borrow-with-Sorrow-The-Changing-Risk-Profile-of-Sub-Saharan-Africas-Debt.pdf (accessed September 2022).

Capital Markets Authority (2020). *Quarterly Statistical Bulletin December 45/2020*. Nairobi: Capital Markets Authority.

Cbonds (2021). 'Africa: Domestic and International Bond Search'. Cbonds.com - Financial Market Data. Available at: https://cbonds.com/bonds/ (accessed September 2022).

Cbonds (2022). 'Republic of Korea Bonds'. Available at: https://cbonds.com/country/Korea-bond/ (accessed September 2022).

CFA Institute Research Foundation (2021). 'Capital Markets: Malaysia'. Available at: rfbr-apac-capital-markets-malaysia.ashx (cfainstitute.org) (accessed September 2022).

Cha, M.S. (2008). *The Economic History of Korea*. EH.Net Encyclopedia, edited by R. Whaples. Available at: https://eh.net/encyclopedia/the-economic-history-of-korea/ (accessed September 2022).

Chimpango, B.W. (2019). 'The Development of African Capital Markets: A Legal and Institutional Approach'. PhD Thesis. Nottingham: Nottingham Trent University. Available at: https://core.ac.uk/download/pdf/30624139.pdf (accessed September 2022).

Corporate Finance Institute (2020). 'Rights Issue'. Available at: https://corporatefinanceinstitute.com/resources/knowledge/finance/rights-issue/ (accessed September 2022).

Fama, E.F. (2021). 'Efficient Capital Markets a Review of Theory and Empirical Work'. In E.F. Fama (ed.),*The Fama Portfolio*. Chicago, IL: University of Chicago Press. https://doi.org/10.7208/9780226426983-007

Gakunu, P. (2007). 'Reforming the Financial System in Sub-Saharan Africa: The (Long) Way Ahead'. *Finance & Bien Commun*, (3): 139-146. https://www.cairn.info/revue-finance-et-bien-commun-2007-3-page-139.htm

GSIA (2022). 'Custodian Banks'. The Ghana Securities Industry Association. Available at: https://gsiaonline.org/members/13/0 (accessed September 2022).

Gupta, P., and A.M. Sharma (2014). 'A Study of the Impact of Corporate Governance Practices on Firm Performance in Indian and South Korean Companies'. *Procedia-Social and Behavioral Sciences*, 133: 4–11.

Haque, F., T.G. Arun, and C. Kirkpatrick (2008). 'Corporate Governance and Capital Markets: a Conceptual Framework'. *Corporate Ownership and Control*, 5(2): 264–76. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3037927 (accessed September 2022).

IIFM (2021). *IIFM Sukuk Report 2021 (10th Edition)*. International Islamic Financial Market. Available at: https://www.iifm.net/sukuk-reports (accessed September 2022).

JSE (Johannesburg Stock Exchange) (2016). 'Johannesburg Stock Exchange Switches to T+3 Settlement Cycle on 11 July'. African Markets. Available at: https://www.african-markets.com/en/stock-markets/jse/johannesburg-stock-exchange-switches-to-t-3-settlement-cycle-on-11-july (accessed September 2022).

JSE (Johannesburg Stock Exchange) (2021). 'History & Company Overview'. Available at https://www.jse.co.za/our-business/history-%26-company-overview (accessed September 2022).

JSE (Johannesburg Stock Exchange) (2022). 'Firms Listed on AltX. Johannesburg Stock Exchange (JSE)'. Available at: https://www.jse.co.za/altx-small-cap-trading-fee (accessed September 2022).

Karekwaivenani, G. (2003). 'A History of the Rhodesian Stock Exchange: The Formative Years, 1946–1952'. Available at: https://ir.uz.ac.zw/jspui/bitstream/10646/507/1/02-Kare.pdf (accessed September 2022).

Kim, J. (2017). 'Corporate Financial Structure of South Korea After Asian Financial Crisis: The Chaebol Experience'. *Journal of Economic Structures*, 6(1): 1–14.

Kodongo, O., and K. Ojah (2016). 'Does Infrastructure Really Explain Economic Growth in Sub-Saharan Africa'. *Review of Development Finance*, 6(2): 105–25. https://www.sciencedirect.com/science/article/pii/S1879933716301798

Korea Exchange (2021). 'KOSDAQ Market'. Global KRX. Available at: https://global.krx.co.kr/contents/GLB/02/0201/0201010301/GLB0201010301.jsp (accessed 9 February 2021).

Korea Exchange (2022). 'Basic Facts about Trading System: General Procedures of Trading'. Global KRX. Available at: https://global.krx.co.kr/contents/GLB/06/0602/0602010201/GLB0602010201.jsp#826f2bceb71bdd795d4f782fda605cb1=1 (accessed September 2022).

Laeven, L. (2014). 'The Development of Local Capital Markets: Rationale and Challenges'. IMF Working Paper 2014/234. Available at: https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Development-of-Local-Capital-Markets-Rationale-and-Challenges-42551 (accessed September 2022).

Lartey, E.K. (2013). 'Remittances, Investment, and Growth in Sub-Saharan Africa'. *The Journal of International Trade and Economic Development*, 22(7): 1038–58. https://doi.org/10.1080/09638199.2011.632692

Mahdi, S (2008). 'The Role of Financial Intermediaries in Capital Market'. *Zagreb International Review of Economics and Business*, 11(1): 97–109.

Maseru Securities Market. (2019). Background. URL. Available at: https://www.msm.org.ls/background (accessed September 2022).

Maseru Securities Market (2022). 'Trading at Maseru Securities Market'. Available at: https://www.msm.org.ls/trading-method (accessed September 2022).

Monetary Authority of Singapore (2021). 'Capital Markets'. Available at: https://www.mas.gov.sg/regulation/capital-markets (accessed September 2022).

Nega, B., and G. Schneider (2011). 'International Financial Institutions and Democracy in Africa: The Case for Political Conditionality and Economic Unconditionality'. *Journal of Economic Issues*, 45(2): 421–30. https://doi.org/10.2753/JEI0021-3624450219

Nigeria Exchange Group (2019). 'About Us'. Available at: https://ngxgroup.com/about-us/ (accessed September 2022).

Nigeria Exchange Group (2020). 'Growth Board'. Available at: https://ngxgroup.com/exchange/raise-capital/growth-board/ (accessed September 2022).

Nigeria Exchange Group. (2021). 'Financial Information'. Available at: https://ngxgroup.com/financial-information/ (accessed September 2022).

Nnyanzi, J.B., J.M. Bbale, and B. Yawe (2018). 'Capital Markets and Growth in Selected Sub-saharan African Countries: a Sectoral Analysis'. ResearchGate. Available at: https://www.researchgate.net/publication/327745936_CAPITAL_MARKETS_AND_GROWTH_IN_SELECTED_SUBSAHARAN_AFRICAN_COUNTRIES_A_SECTORAL_ANALYSIS (accessed March 2021).

NSE (Nairobi Securities Exchange) (2013). 'History of NSE'. Available at: https://www.nse.co.ke/our-story/ (accessed September 2022).

NSE (Nairobi Securities Exchange) (2021). 'Annual Reports'. Available at: https://www.nse.co.ke/annual-reports/ (accessed September 2022).

NSE (Nairobi Securities Exchange). (2022a). 'Growth Enterprise Market Segment'. Available at: https://www.nse.co.ke/growth-enterprise-market-segment/ (accessed September 2022).

NSE (Nairobi Securities Exchange). (2022b, June 23). 'Our Story'. Available at: https://www.nse.co.ke/our-story/ (accessed September 2022).

Osano, E. (2016). 'Five Reasons Why Capital Markets Matter in Africa'. FSD Africa. Available at : https://www.fsdafrica.org/news/five-reasons-why-capital-markets-matter-in-africa/ (accessed September 2022).

PwC (2019). '2019 Africa Capital Markets Watch'. Available at : https://www.pwc.com/ng/en/publications/africa-capital-markets-watch.html (accessed September 2022).

PwC (2021). 'Africa Capital Markets Watch 2020'. Available at: https://www.pwc.co.za/en/publications/africa-capital-markets-watch.html (accessed September 2022).

Raubenheimer, H. (ed.) (2019). 'African Capital Markets: Challenges and Opportunities'. CFA Institute Research Foundation Brief. Available at : https://Www.Cfainstitute.Org/-/Media/Documents/Article/Rf-brief/Rf-african-capital-markets.Ashx (accessed September 2022).

Rwanda Stock Exchange (2022). 'Rwanda Stock Exchange Trading System'. Available at: https://www.rse.rw/product-and-services/Trading-System/ (accessed September 2022).

SAHO (South African History Online) (2021). 'The Johannesburg Stock Exchange is Established'. Available at: https://www.sahistory.org.za/dated-event/johannesburg-stock-exchange-established (accessed September 2022).

Samaha, K., K. Dahawy, K. Hussainey, and P. Stapleton (2012). 'The Extent of Corporate Governance Disclosure and Its Determinants in a Developing Market: The Case of Egypt'. *Advances in Accounting*, 28(1): 168–78.

Schwab, K. (ed.) (2018). *The Global Competitiveness Report 2018*. Geneva: World Economic Forum.

Schwab, K. (ed.) (2019). *The Global Competitiveness Report 2019*. Geneva: World Economic Forum.

Securities Commission of Malaysia (2001). 'Capital Market Masterplan: Malaysia'. Available at: https://www.sc.com.my/resources/publications-and-research/capital-market-masterplan-1 (accessed September 2022).

Singapore Exchange. (2021). 'Annual Reports and Shareholders' Meetings'. Available at: https://investorrelations.sgx.com/financial-information/annual-reports (accessed September 2022).

Singapore Exchange (2022). 'Clearing Information at Singapore Exchange'. Available at: https://www.sgx.com/securities/clearing-information (accessed September 2022).

Singh, R.A., and Z.A. Yusof (2005). 'Development of the Capital Market in Malaysia'. In D. Vandenbrink and D. Hew (eds), *Capital Markets in Asia: Changing Roles for Economic Development.* Tokyo: Tokyo Club Foundation for Global Studies.

Somali Stock Exchange. (2022). 'About Us'. Available at: https://www.sse.so/about-us/(accessed September 2022).

Soumare, I., D. Kanga, J. Tyson, and S. Raga (2021). 'Capital Market Development in Sub-Saharan Africa: Progress, Challenges, and Innovations'. ODI Research Series for Financial Development in Africa. Working Paper 2. Available at: https://cdn.odi.org/media/documents/ODI_Working_Paper_2_Capital_markets_development_in_SSA_FINAL_clean.pdf (accessed September 2022).

Stock Exchange of Mauritius (2021). 'Annual Reports'. Available at: https://www.stockexchangeofmauritius.com/cds/annual-reports (accessed September 2022).

Stock Exchange of Mauritius (2022). 'Regulations and Governance: Transaction Fees'. Available at: https://www.stockexchangeofmauritius.com/regulations-governance/transaction-fees (accessed September 2022).

Uganda Securities Exchange (2021). 'Annual Reports'. Available at: https://www.use.or.ug/content/annual-reports (accessed September 2022).

Van der Wansem, P.B., L. Jessen, and D. Rivetti (2019). 'Issuing International Bonds: A Guidance Note'. MTI Global Practice Discussion Paper 13. Washington, DC: World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/31569 (accessed September 2022).

Woodsome, J. (2016). 'Malaysia's Capital Market Masterplan, 2001-2010: A Case Study'. Milken Institute Center for Financial Markets Working Paper. Available at: https://milkeninstitute.org/sites/default/files/reports-pdf/Malaysia-Case-Study-FORMATTED.pdf (accessed September 2022).

World Bank (2021). 'World Development Indicators. Personal Remittances Received (Current US $): Sub-Saharan Africa'. Available at: https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT?locations=ZG (accessed September 2022).

World Bank (2022). 'World Development Indicators'. Available at: https://databank.worldbank.org/source/world-development-indicators (accessed September 2022).

World Federation of Exchanges (2021a). 'Korea Exchange- Bonds Market'. Available at: https://statistics.world-exchanges.org/ReportGenerator/Generator (accessed September 2022).

World Federation of Exchanges (2021b). 'Equity Market-Number of Listed Companies'. Available at: https://statistics.world-exchanges.org/ReportGenerator/Generator (accessed September 2022).

Zhou, P. (2021). 'The History of Singapore's Economic Development'. Available at: https://www.thoughtco.com/singapores-economic-development-1434565 (accessed September 2022).

Appendix

Table A1: Capital markets legal and regulatory framework in sub-Saharan Africa

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
Nigeria	Securities Exchange Commission (SEC)	1980	Regulation and development of the Nigerian capital market.	Investment and Securities Act,1999.	• SEC Guidelines on Sustainable Financial Principles for the Capital Market. • SEC Nigeria's Consolidated Rules and Regulations. • Codes of conduct. Interpretive guidance notes. These help provide guidance in complying with the relevant SEC rules and regulations.
Ghana	Securities and Exchange Commission (SEC)	1993	To regulate, innovate, and promote the growth and development of an efficient, fair, and transparent securities market in which investors and the integrity of the market are protected.[1]	Securities Industry Act, 2016 (Act 929). Foreign Exchange Act 2006 (Act 723).	• SEC Regulations 2003 (LI 1728). • Unit Trust and Mutual Fund Regulations (LI 1695). • Circulars. • Directives. • Guidelines.
	Ghana Stock Exchange (GSE)	1989	To regulate dealings, to provide framework to the public for the purchase and sales of bonds, shares, and securities, and to co-ordinate the stock dealing activities.	Securities Act.	• SEC Regulations 2003 (LI 1728) (SEC Regulations). • SEC Compliance Manual for Broker-Dealers, Investment Advisers and Representatives. • GSE rule book issued by the GSE, which contains the listing rules, the dealing membership rules and the trading and settlement rules for the GSE. • GAX listing rules issued by the GSE. • Central Securities Depository Rules and Operational Procedures.[2]

[1] https://sec.gov.gh/overview/

[2] https://gse.com.gh/overview/

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
Cape Verde	Auditor of the Securities Market or Auditoria Geral do Mercado de Valores Mobiliários (AGMVM)	2012	Supervising the securities market.	Article 5(1) of the securities code approved by decree-law.	• Decree-Law no. 59/2009, of 14 December – Legal Framework for Treasury Bills. • Decree-Law No. 60/2009, of 14 December – Legal Framework for Treasury Bonds. • Ordinance No. 30/2013, of May 27, 2013 – Custody of Public Debt Securities. • DGT Instruction No. 1/2013 – Issuance of Treasury Bills. • DGT Instruction No. 2/2013 – Issuance of Treasury Bonds. • Contingency Plans for Treasury Bills and Bonds. • Law No. 62/VIII/2014, of April 23, regulates the activities of Financial Institutions (OG No. 28–- I Series).
South Africa	Financial Sector Conduct Authority	2018	Regulation and supervision of securities exchanges, central securities depositories, clearing houses, central counterparties, and trade repositories.	Financial Sector Regulation Act 9 of 2017 (the FSR Act).	• Auditing Profession Act 2005. • Banks Act 1990. • Broad Based Black Economic Act 2003 (BEE Act), together with the Broad Based Black Economic Empowerment Codes of Good Practice gazetted from time to time in terms of the BEE Act. • Companies Act 2008. • Currency and Exchanges Act 1933. • Financial Markets Act 2012. • Financial Services Board Act 1990. • Income Tax Act 1962. • Securities Transfer Tax Act 2007.
Botswana	Non-Bank Financial Institutions Regulatory Authority (NBFIRA)	2006	To regulate and enforce compliance within the NBFI sector.	Non-Bank Financial Institutions Regulatory Authority (NBFIRA) Act.	• Bond Trading Rules. • BSE Equity Trading Rules. • BSE Listing Requirements (rules regulating market makes).

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
					• BSE Serala OTC Board (guidance for listed companies on reporting ESG information to investors).[3]
Zambia	Securities and Exchange Commission	2016	Supervision and development of the Zambian Capital Markets. Licensing, registration, and authorization for financial intermediaries, issuers of debt and equity instruments, and collective investment schemes.[4]	The Securities Act of 2016.	• Securities (Takeovers and Mergers) Rules. • Securities (Advertisement) Rules. • The Securities (Collective Investment Schemes) Rules. • SI 2013. • SI No 82. • SI No 41 of 2015 - Fees and Fines Act, etc.
Namibia	Namibia Financial Institutions Supervisory Authority (NAMFISA)	2001	Regulate and supervise entities in capital markets.	Namibia Financial Institutions Supervisory Authority Act, Act 3 of 2001. The Financial Institutions (Investment of Funds) Act, 1984 (No. 39 of 1984). The Unit Trusts Control Act, 1981 (No. 54 of 1981). Determination of conditions in terms of section 4(1)(f) of the Stock Exchange Control Act, 1985 and the Stock Exchanges Control Act, 1985 (No. 1 of 1985).	• Conditions for Investment Managers. • Regulations (Capital Requirements and Securities and Other Assets to be included in Unit Portfolios). • Regulations 13 issued under the Pension Funds Act (No.24 of 1956).
Mozambique	The Bank of Mozambique	1975	Create the necessary conditions for the effective functioning of the market, according to high standards of integrity, regularity,	Decrees 48/98 Regulation of the Securities Market and Decrees 49/98 Establishment of the Mozambique Stock Exchange.	• Law 15/99 of November 01 (regulating the establishment and activities of Credit Institutions and Financial Companies).

[3] https://www.bse.co.bw/

[4] https://www.seczambia.org.zm/

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
			normality, and transparency.[5]		
Malawi Seychelles	Reserve Bank of Malawi Seychelles Financial Services Authority	1964 1994	 To license, regulate, enforce regulatory and compliance requirements, monitor and supervise the conduct of business in the non-bank financial services sector in Seychelles.[6]	The Financial Services Act 2010, the Securities Act 2010 and the Companies Act 2013. Financial Services Authority Act, 2013	
Lesotho	Central Bank of Lesotho	1978	To achieve and maintain price stability.	Lesotho Monetary Authority Act of 1978.	• Central Bank Capital Markets Regulations 2014 Part I to Part III. • Legal Notice No.49 of 2009. • Legal Notice No. 34 of 2001.
Eswatini (formerly Swaziland)	The Financial Services Regulatory Authority (FSRA)	2010	To license, regulate, monitor, and supervise the conduct of the business of financial services providers.	Financial Services Regulatory Authority Act, 2010. Consumer Credit Act, 2016. Money Laundering and Financing of Terrorism Prevention Act, 2011. FSRA Act, 2010. Securities Act, 2010. Insurance Act, 2005. Retirement Funds Act, 2005.	• Micro Insurance Regulations 2020. • Insurance Regulations,2008. • Insurance Directives. • Retirement Funds Regulations Regulations, 2008. • Retirement Funds Directives, 2008.

[5] https://www.bancomoc.mz/

[6] https://fsaseychelles.sc/

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
Tanzania	Capital Markets and Securities Authority (CMSA)	1995	To develop, regulate and promote the capital market.	Chapter 79 RE 2002[7] of the Capital Markets and Securities Act .	• The Capital Markets and Securities (Accounting and Financial Requirements Amendment) Regulations, 2003.[8] • Capital Markets and Securities (Advertisement) Regulations.[9] • The Capital Markets and Securities (Capitalization and Rights Issue) Regulations.[10] • The Capital Markets and Securities (Collective Investment Schemes) Regulations, 2011.[11] • The Capital Markets and Securities (Collective Investment Schemes) Regulations 1997.[12] • The Capital Markets and Securities (Conduct of Business) Regulations.[13] • The Capital Markets and Securities (Establishment of Stock Exchanges) Regulations.[14] • The Capital Markets and Securities (Foreign Companies Public Offers Eligibility and Cross Listing Requirements) Regulations, 2003.[15]

[7] https://www.cmsa.go.tz/pages/who-we-are-1

[8] https://www.cmsa.go.tz/uploads/publications/en-1576060402-CMS%20Accounting%20and%20Financial%20Requirements%20(Amendment)%202003.pdf

[9] https://www.cmsa.go.tz/uploads/publications/en-1576059971-CMS%20ADVERTISEMENTS%20REGULATIONS.pdf

[10] https://www.cmsa.go.tz/uploads/publications/en-1576059907-CMS%20CAPITALISATION%20AND%20RIGHTS%20ISSUE%20REGULATIONS.pdf

[11] https://www.cmsa.go.tz/uploads/publications/en-1576059784-CMS%20Collective%20Investment%20Schemes%20-%20Amendments.pdf

[12] https://www.cmsa.go.tz/uploads/publications/en-1576059725-CMS%20COLLECTIVE%20INVESTMENT%20SCHEMES%20REGULATIONS.pdf

[13] https://www.cmsa.go.tz/uploads/publications/en-1576059660-CMS%20CONDUCT%20OF%20BUSINESS%20REGULATIONS.pdf

[14] https://www.cmsa.go.tz/uploads/publications/en-1576059053-CMS%20ESTABLISHMENT%20OF%20STOCK%20EXCHANGES%20REGULATIONS.pdf

[15] https://www.cmsa.go.tz/uploads/publications/en-1576058965-CMS%20Foreign%20Companies%20Offers%20Eligibility%20and%20Cross%20Listing%20Requirements%20(2003).pdf

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
					• The Capital Markets and Securities (Foreign Companies Public Offers Eligibility and Cross Listing Requirements) Regulations, 2004.[16] • The Capital Markets and Securities (Foreign Companies Public Offers and Cross Listing, Requirements) Amendment Regulations, 2005.[17] • The Capital Markets and Securities (Foreign Companies Public Offers Eligibility and Cross Listing Requirements) Regulations, 2006.[18] • The Capital Markets and Securities (Foreign Investors) Regulations 2003.[19] • The Capital Markets and Securities (Licensing) Regulations. • The Capital Markets and Securities (Nominated Advisers) Regulation, 2008.[20] • The Capital Markets and Securities (Registers of Interests in Securities) Regulations. [21] • The Commodity Exchanges Regulations, 2016. [22] • The Capital Markets and Securities (Foreign Investors) Regulations, 2014.[23]

[16] https://www.cmsa.go.tz/uploads/publications/en-1576058880-CMS%20Foreign%20Companies%20Offers%20Eligibility%20and%20Cross%20Listing%20Requirements%20(2004).pdf

[17] https://www.cmsa.go.tz/uploads/publications/en-1576058806-CMS%20Foreign%20Companies%20Offers%20Eligibility%20and%20Cross%20Listing%20Requirements%20(2005).pdf

[18] https://www.cmsa.go.tz/uploads/publications/en-1576058676-CMS%20Foreign%20Companies%20Offers%20Eligibility%20and%20Cross%20Listing%20Requirements%20(2006).pdf

[19] https://www.cmsa.go.tz/uploads/publications/en-1576058579-CMS%20Foreign%20Investors%20Regulations%202003.pdf

[20] https://www.cmsa.go.tz/uploads/publications/en-1576058361-CMS%20NOMINATED%20ADVISERS%20REGULATIONS.pdf

[21] https://www.cmsa.go.tz/uploads/publications/en-1576058114-CMS%20REGISTERS%20OF%20INTERESTS%20IN%20SECURITIES%20REGULATIONS.pdf

[22] https://www.cmsa.go.tz/uploads/publications/en-1576058032-COMMODITY%20EXCHANGES%20REGULATIONS%202016.pdf

[23] Project timesheet.docx

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
					• The Capital Markets and Securities (Prospectus Requirements) .
Uganda	Capital Markets Authority	1996	To develop, regulate and promote the capital market.	Capital Markets Authority Act Cap 84. Securities Central Depository Act, 2009. Collective Investment Schemes Act, 2003.	• Capital Markets (Investor Compensation Fund) Regulations 15th December 2015. • The Capital Markets (Asset Backed Securities) (Amendment) Regulations, 2016. • The Capital Markets Authority (Licensing)(Amendment) Regulations, 2016. • The Capital Markets (Conduct of Business Regulation SI N0.56 of 1996). • The Collective Investment Schemes (Real Estate Investment Trusts) Regulations, 2017. • The Capital Markets (Establishment of Stock Exchanges) Regulations, SI 84-3. • The Capital Markets (Takeovers and Mergers) Regulations (SI N0.55 of 2012). • The Securities Central Depositories Regulations (SI No.38 of 2009). • The Collective Investment Schemes (Conduct of Business and Miscellaneous Provisions) Regulations (SI No.43 of 2007). • The Collective Investment Schemes (Unit Trusts) Regulations (SI No.100 of 2003). • The Collective Investment Schemes (Open ended Investment Companies) Regulations (SI No.1010 of 2003). • The Collective Investment Schemes (Licensing) Regulations (SI No.99 of 2003). • The Collective Investment Schemes (Financial and Accounting) Regulations (SI N0.98 of 2003). • The Collective Investment Schemes (Fees) Instrument (SI No.88 of 2003). • The Capital Markets (Cross Boarder Introductions) Regulations (SI N0.43 of 2004). • The Capital Markets (Fund Managers) Regulations (SI N042 of 2004).

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
					• The Capital Markets (Prospectus Requirements) (Amendment No. 2) Regulations (SI N0 62 of 2001). • The Capital Markets (Prospectus Requirements) Regulations, SI 84-2. • The Capital Markets (Licensing) (Amendment) Regulations, 2003. • The Capital Markets (Licensing) Regulations, SI 84-1. • The Capital Markets Exchange Traded Funds Guidelines, 2016. • The Capital Markets Disaster Recovery Guidelines, 2005. • The Capital Markets Commercial Paper Guidelines, 2003. • The Capital Markets Conflict of Interest Guidelines, 2001. • The Capital Markets Corporate Bond Guidelines, 2003. • The Capital Markets Corporate Governance Guidelines, 2003.
Rwanda	Capital Markets Authority (Rwanda)	2017	Regulate and develop the capital markets industry.	Law No.23/2017.	• Law modifying the law regulating markets business. • Law regulating capital markets business in Rwanda. • Law regulating the warehouse receipt system. • Law regulating commodity exchange and related contracts. • Law establishing the Capital Market Authority of Rwanda CMA. • Law providing for incentive under capital market • Investment Code. • Law regulating Collective Investment Schemes. • Law governing the establishment and creation of trusts and trustees. • Law governing the holding and circulation of securities. • Pension Law.

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
					• Regulations on the operations of the Central Securities Depository. • Regulation on the registration of credit-rating agencies in Rwanda. • The capital market corporate governance code. • Regulation covering licensees financial reporting. • Regulation on the real estate investment trusts. • Capital market regulation on fees. • Capital market takeover regulation. • Regulation on asset backed securities. • Regulation on book building process. • Regulation on capital market complaints. • Regulation on capital market enforcement guidance. • Regulation on capital market principles. • Regulation on capital market public offers. • Regulation on conduct of business. • Regulation on custodial services. • Regulation on establishment of compensation scheme. • Regulation on issuance of debt securities. • Regulation on issuance of regional fixed income securities. • REIT regulations • Regulation on capital markets cross-border introductions. • Licensing regulation. • Capital market guidelines on issuance of commercial papers. • Guidelines governing the development of real estate investment trust. • Disclosure guidelines for SMEs. • Guideline on issuance of municipal bonds. • EAC Directives of 27 October 2017. • EAC Directives of 29 May 2015. •

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
Kenya	Capital Markets Authority	1989	Regulate and develop the capital markets industry.	Capital Markets Act and The Central Depositories Act, 2000.	Regulations and rules touching on: • Collective Investment Schemes • Public offers, listing • Licensing requirements • Takeovers and mergers • Foreign investors • Capital Markets Tribuna. • Asset backed securities • Registered venture capital companies • Conduct of business by market intermediaries • Corporate governance of market intermediaries • Futures exchanges licensing requirements • Real estate investment trusts collective investment schemes. Guidelines on: • Corporate practices by public listed companies • Approval and registration of credit ratings agencies • Financial requirement for market intermediaries. Policy guidance notes on: • Green bonds • Regulatory sandbox • Global depositary receipts and notes, asset backed securities • Exchange traded funds.
Mauritius	Financial Services Commission, Mauritius (FSC)	2001	Promote the development, fairness, efficiency, and transparency of financial institutions and capital markets in Mauritius; Suppress crime and malpractices to provide protection to members of the public investing in non-banking financial products; and ensure the soundness	Financial Services Act 2007, Securities Act 2005	• Financial Services (Crowdfunding) Rules 2021. • Financial Services (Administrative Penalties) Rules 2013.

Country	Capital markets regulator	Date established	Mandate of the regulator	Main acts	Other regulations/guidelines
			and stability of the financial system in Mauritius.[24]		

Source: authors' compilation from various stock/securities exchanges and capital markets regulators.

[24] https://www.fscmauritius.org/en

Table A2: Products in sub-Saharan African exchanges

Country	Equity	Bonds	Commod -ities	Derivatives								Other products			
				Commodity	**Stock**	**Currency**	**Emissions**	**Precious metals**	**ETFs**	**Quanto**	**Interest rate**	**Investment funds**	**Securitized derivatives**	**REITs**	**ETFs**
Eastern Africa															
Kenya (Nairobi Securities Exchange)	Yes	Yes	Yes	None	Yes	None	None	None	Yes	None	None	Yes	Yes	Yes	Yes
Mauritius (Stock Exchange of Mauritius)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes
Uganda (Uganda Securities Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	None	Yes
Tanzania (Dar es Salaam Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes
Somalia (Somali Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None
Rwanda (Rwanda Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None
Seychelles (Merj Exchange Limited)	Yes	Yes	Yes	Yes	Yes	Yes	None	None	Yes	None	Yes	Yes	None	None	Yes
Southern Africa															
South Africa															
1) Johannesburg Stock Exchange Limited	Yes	Yes	Yes	Yes	Yes	Yes	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2) A2X Markets	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	Yes	Yes
3) 4 Africa Exchange	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	Yes	Yes
4) ZAR X	Yes	None	None	None	None	None	None	None	None	None	None	None	None	Yes	Yes

Country	Equity	Bonds	Commod -ities	Derivatives								Other products			
				Commodity	Stock	Currency	Emissions	Precious metals	ETFs	Quanto	Interest rate	Investment funds	Securitized derivatives	REITs	ETFs
5) Equity Express Securities Exchange	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Eswatini (Eswatini Stock Exchange)	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	Yes	Yes
Zambia															
1) Lusaka Stock Exchange	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	None	Yes
2) Africa Digital Stock Exchange Ltd	None	None	Yes	None	None	None	None	None	None	None	None	None	None	None	None
Zimbabwe (Zimbabwe Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes
Namibia (Namibia Stock Exchange)	Yes	Yes	None	None	None	None	None	None	None	None	None	Yes	None	None	Yes
Mozambique (Bolsa de Valores de Mozambique)	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None
Malawi (Malawi Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	None	None
Lesotho (Maseru Securities Exchange)	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None
Angola (Angola Stock Exchange and Derivatives)	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None
Botswana (Botswana Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes
West Africa															
Nigeria															
1) Nigeria Stock Exchange	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes

Country	Equity	Bonds	Commod -ities	Derivatives								Other products			
				Commodity	Stock	Currency	Emissions	Precious metals	ETFs	Quanto	Interest rate	Investment funds	Securitized derivatives	REITs	ETFs
2) Abuja Securities and Commodities Exchange	None	None	Yes	None	None	None	None	None	None	None	None	None	None	None	None
Ghana (Ghana Stock Exchange)	Yes	Yes	Yes	None	None	None	None	None	None	None	None	Yes	None	Yes	Yes
Bourse Régionale des Valeurs Mobilières (Regional Securities Exchange) – Côte d'Ivoire Benin Burkina Faso, Guinea-Bissau Mali Niger Senegal Togo	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None
Cape Verde (Bolsa de Valores de Cabo Verde)	None	Yes	None	None	None	None	None	None	None	None	None	Yes	None	None	None
Central Africa															
Bourse des Valeurs Mobilières de l'Afrique Centrale (Stock Exchange of Central Africa) – Gabon, The Central African Republic, Republic of Congo, Equatorial Guinea, Chad	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None
Cameroon (Douala Stock Exchange)	Yes	Yes	None	None	None	None	None	None	None	None	None	None	None	None	None

Source: authors' compilation based on data from World Federation of Exchanges (2021b) and respective stock exchanges in SSA.

Table A3: IPOs in sub-Saharan Africa, Capital raised (USD millions)

Region	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Southern Africa											
South Africa	(7) 1,504	(5) 790	(5) 258	(4) 261	(9) 742	(12) 658	(7) 823	(12) 2,289	(3) 1,383	(0) 0	(1) 467
Namibia	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(2) 21	(0) 0	(1) 49	(0) 0
Botswana	(2) 45	(2) 68	(1) 47	(0) 0	(0) 0	(0) 0	(1) 42	(2) 45	(1) 28	(0) 0	(0) 0
Zimbabwe	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(1) 1	(0) 0	(0) 0	(0) 0	(0) 0
Mozambique	(0) 0	(0) 0	(0) 0	(1) 11	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(1) 53	(0) 0
Zambia	(0) 0	(0) 0	(0) 0	(0) 0	(1) 9	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Malawi	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(1) 20	(2) 47
Eastern Africa											
Tanzania	(0) 0	(1) 7	(0) 0	(1) 3	(2) 6	(1) 15	(3) 7	(1) 212	(0) 0	(0) 0	(0) 0
Kenya	(0) 0	(1) 76	(0) 75	(0) 0	(1) 7.13	(1) 35	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0
Mauritius	(0) 0	(1) 10	(0) 0	(0) 0	(1) 29	(0) 0	(1) 95	(3) 167	(0) 0	(0) 0	(0) 0
Rwanda	(0) 0	(2) 91	(0) 0	(0) 0	(0) 0	(1) 39	(0) 0	(1) 11	(0) 0	(0) 0	(0) 0
Uganda	(1) 3	(1) 66	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(1) 45	(0) 0	(0) 0
West Africa											
Ghana	(0) 0	(0) 0	(0) 0	(0) 0	(1) 2	(4) 5	(2) 102	(0) 0	(2) 240	(0) 0	(0) 0
Nigeria	(1) 90	(0) 0	(0) 0	(1) 190	(2) 548	(1) 23	(0) 0	(0) 0	(0) 0	(2) 690	(0) 0
Bourse Régionale des Valeurs Mobilières serves Côte d'Ivoire, Benin, Togo, Guinea-Bissau, Mali, Niger Senegal, and Burkina Faso	(0) 0	(0) 0	(0) 0	(0) 0	(2) 18	(1) 14	(3) 126	(2) 143	(1) 99	(0) 0	(0) 0
Central Africa											

Bourse des Valeurs Mobilières d'Afrique Centrale (BVMAC) – serves Gabon, Chad, Cameroon, Republic of Congo, Central African Republic, and Equatorial Guinea.	(0) 0	(0) 0	(0) 0	(1) 66	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0	(0) 0

Note: number of IPOs in brackets.

Source: authors' compilation based on data from PwC Africa Capital Markets Watch Reports and various stock exchanges in sub-Saharan Africa.

Table A4: Infrastructural and institutional development indicators in sub-Saharan African exchanges

Country	Market regulator	Government law	Exchange control	Clearing & settlement	Settlement cycle	International custodian	Foreign participation	Trading system	Central depository	Trading days	Reporting system
Southern Africa											
South Africa	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Botswana	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Zimbabwe	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	None	5	International
Namibia	Yes	Yes	None	Electronic	T+5	Yes	Yes	Electronic	Yes	5	International
Eswatini	Yes	Yes	None	Electronic	T+5	Yes	Yes	Electronic	Yes	5	International
Zambia	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Lesotho	Yes	Yes	None	Electronic	T+2	No	Yes	Manual	Yes	5	International
Malawi	Yes	Yes	None	Electronic	T+5	Yes	Yes	Electronic	Yes	5	International
Mozambique	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Angola	Yes	Yes	None	Electronic	T+2	No	Yes	Electronic	Yes	5	International
Eastern Africa											
Kenya	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Tanzania	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Uganda	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Mauritius	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Rwanda	Yes	Yes	None	Electronic	T+2	Yes	Yes	Manual	Yes	5	International
Somalia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Seychelles	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
West Africa											
Nigeria	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Ghana	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International
Côte d'Ivoire	Yes	Yes	Yes	Electronic	T+3	Yes	Yes	Electronic	Yes	5	Local
Cape Verde	Yes	Yes	None	Electronic	T+3	Yes	Yes	Electronic	Yes	5	Local
Gabon	Yes	Yes	Yes	Electronic	T+3	Yes	Yes	Electronic	Yes	5	International

Source: authors' compilation based on data from the various stock exchanges in sub-Saharan Africa.

Table A5: Sub-Saharan Africa capital markets: capital raised from corporate bonds issuances (USD mllions)

Region/period	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Sub-Saharan Africa	85,726.00	96,962.30	102,531.80	104,205.60	103,729.90	111,598.40	128,805.60	137,331.70	146,206.00	178,317.9
Southern Africa										
Namibia	-	-	-	-	-	-	-	-	-	-
Eswatini	0	0	0	0	0	0	0	0	0	0
Botswana	0	79.7	79.7	79.7	0	0	0	0	12.1	18.5
South Africa	52,623.40	58,342.60	55,617.00	54,207.40	49,029.60	51,973.10	60,077.50	62,408.90	65,208.60	79,651.10
Angola	8,772.70	8,772.70	8,772.70	8,772.70	8,772.70	8,772.70	8,772.70	8,772.70	8,772.70	10,774.10
Mozambique	1,279.90	1,311.50	3,878.70	3,455.40	3,428.10	3,566.00	3,877.30	6,469.70	7,605.70	8,222.90
Zambia	1,740.30	2,968.80	3,335.50	4,764.50	6,461.80	7,038.60	8,763.70	9,902.70	11,090.60	16,445.00
Zimbabwe	912.7	1,840.10	1,010.50	1,236.60	1,922.30	3,640.40	3,982.70	4,478.20	3,888.80	3,824.50
Malawi	0	0	0	0	0	0	0	0	0	0.00
Lesotho	0	0	0	0	0	0	0	0	0	0.00
Madagascar	13.5	10.1	7.7	5.5	12.7	5	29.7	92.3	118.7	130.00
Comoros	0	0	0	0	0	0	0	0	0	0.00
Eastern Africa										
Tanzania	1,248.00	1,464.50	1,516.90	1,858.50	2,196.80	2,674.00	3,094.80	3,463.10	3,368.80	4,491.20
Ethiopia	0	0	0	0	0	0	0	0	0	0
Kenya	0	0	115	286.2	734.8	673.5	848.6	1,020.80	817.3	821
Mauritius	4,328.70	6,274.50	7,630.40	5,483.80	3,720.60	4,078.60	8,921.30	9,693.10	10,888.90	10,234.00
Rwanda	245	552	621	1,010.00	1,271.70	1,535.50	1,645.40	1,769.50	1,769.40	2,173.10
Seychelles	-	-	-	-	-	-	-	-	-	-
Uganda	4.6	4.6	3,760.7	3,657.7	3,911.1	3,909.5	4,067.3	3,868.6	4,145.8	3,911.40
Burundi	0	0	0	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0	0	0
Djibouti	0	0	0	0	0	0	0	0	0	0
Eritrea	0	0	0	0	0	0	0	0	0	0
West Africa										
Ghana	0	0	0	253.2	253.2	253.2	253.2	253.2	253.2	253.2
Côte d'Ivoire	1,332.00	2,490.20	2,066.90	1,693.40	1,369.60	1,324.30	1,238.10	1,011.30	1,278.80	990.7

Nigeria	12,495.30	12,212.60	13,616.70	16,534.90	19,414.70	20,827.00	21,984.70	22,889.90	24,984.40	34,872.60
Senegal	265	265.5	271.2	271.8	228.5	239.3	249.8	442.3	520	691.7
Cabo Verde	0	0	0	3.4	3.2	3.1	2.9	2.6	2	-
Benin	0	0	0	0	0	0	0	0	0	0
Burkina Faso	3.6	4.9	6.3	7.7	9.9	7.4	9.6	11	10.3	5.3
The Gambia	0	0	0	0	0	0	0	0	0	0
Guinea-Bissau	0.1	0.1	0	0	0	0	0	24	18.4	
Guinea,	0	0	0	0	0	0	0	0	0	0
Liberia	0	0	0	58	71	64.9	60.8	55.2	48.5	41.4
Sierra Leone	0	0	0	0	0	0	0	0	0	0
Togo	0	0	0	0	0	0	0	0	0	0
Niger	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	0	0	0
Central Africa										
Gabon	0	0	0	0	0	0	0	0	0	0
Cameroon	461.2	367.9	224.9	565.2	917.6	1,012.30	925.5	702.6	1,403.00	766.2
Central African Republic	0	0	0	0	0	0	0	0	0	0
Gabon	0	0	0	0	0	0	0	0	0	0
Congo Republic	0	0	0	0	0	0	0	0	0	0
Democratic Republic of Congo (DRC)	0	0	0	0	0	0	0	0	0	0
Equatorial Guinea	0	0	0	0	0	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	0	0

Source: authors' compilation based on international debt statistics by the World Bank.

Table A6: Sub-Saharan Africa debt market: money raised from non-local currency public bonds (USD millions)

Region/period	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Sub-Saharan Africa	34,327	41,356	57,419.00	61,279.10	70,862.50	66,373.90	82,749.20	106,410.60	116,170.60	136,997.00	136,579.70
Southern Africa											
Eswatini	0	0	0	0	0	0	0	0	0	0	0
Botswana	1	1	79.7	79.7	79.7	79.7	0	0	0	0	0
South Africa	32,329	38,548	52,194.90	51,295.30	53,443.50	43,009.80	58,657.50	75,192.90	69,411.50	83,261.60	79,651.10
Angola	0	10	1,000.0	1,000.00	2,500.00	2,500.00	2,500.00	6,000.00	8,000.00	8,000.00	8,000.0
Mozambique	0	0	850	850	850	726.5	726.5	726.5	726.5	0	850
Zambia	0	0	750	1,000.00	2,000.00	3,265.30	3,296.50	4,558.50	5,218.60	5,402.90	5,705.20
Zimbabwe	0	0	0	0	0	0	0	0	0	0	0
Malawi	0	0	0	0	0	0	0	0	0	0	0
Lesotho	0	0	0	0	0	0	0	0	0	0	0
Madagascar	0	0	0	0	0	0	0	0	0	0	0
Comoros	0	0	0	0	0	0	0	0	0	0	0
Eastern Africa											
Tanzania	0	0	0	0	0	0	0	0	0	0	0
Ethiopia	0	0	0	0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
Kenya	0	0	0	0	2,750.00	2,750.00	2,750.00	2,750.00	4,750.00	6,100.00	6,100.00
Mauritius	0	0	0	0	0	0	0	43.7	49.9	59	38.9
Rwanda	0	0	0	400	400	400	400	400	400	421	474.9
Seychelles	169	169	21.43	16.07	71.45	61.20	38.48	43.96	43.13	39.20	113.51
Uganda	0	0	0	0	0	0	0	0	0	0	0
Burundi	0	0	0	0	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0	0	0	0
Djibouti	0	0	0	0	0	0	0	0	0	0	0
Eritrea	0	0	0	0	0	0	0	0	0	0	0
West Africa											
Ghana	750	750	0	1,000.00	2,000.00	3,000.00	3,750.00	3,750.00	4,978.10	7,694.90	10,215.40
Côte d’Ivoire	0	0	0	0	0	0	0	0	0	0	0
Nigeria	0	500	500	1,000.00	1,500.00	1,500.00	1,500.00	6,300.00	11,168.40	11,168.40	11,168.40

Senegal	200	500	483.9	494.5	930.5	886.1	873.8	2,025.30	4,151.00	4,121.80	4,158.40
Cabo Verde	0	0	0	0	0	0	0	0	0	0	0
Benin	0	0	0	0	0	0	0	0	0	0	0
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0
The Gambia	0	0	0	0	0	0	0	0	0	0	0
Guinea-Bissau	0	0	0	0	0	0	0	0	0	0	0
Guinea,	0	0	0	0	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	0	0	0	0	0
Sierra Leone	0	0	0	0	0	0	0	0	0	0	0
Togo	0	0	0	0	0	0	0	0	0	0	0
Niger	0	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	0	0	0	0
Central Africa											
Gabon	879	879	874.6	1,718.10	1,718.10	2,218.10	2,218.10	2,200.00	2,186.00	2,186.00	2,436.00
Cameroon	0	0	0	0	0	750.0	750.0	750.0	750.0	750.0	750.0
Central African Republic	0	0	0	0	0	0	0	0	0	0	0
Congo Republic	0	0	0	0	0	0	0	0	0	0	0
Democratic Republic of Congo (DRC)	0	0	0	0	0	0	0	0	0	0	0
Equatorial Guinea	0	0	0	0	0	0	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	0	0	0

Source: authors' compilation based on international debt statistics by the World Bank.